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Arizona Medicine

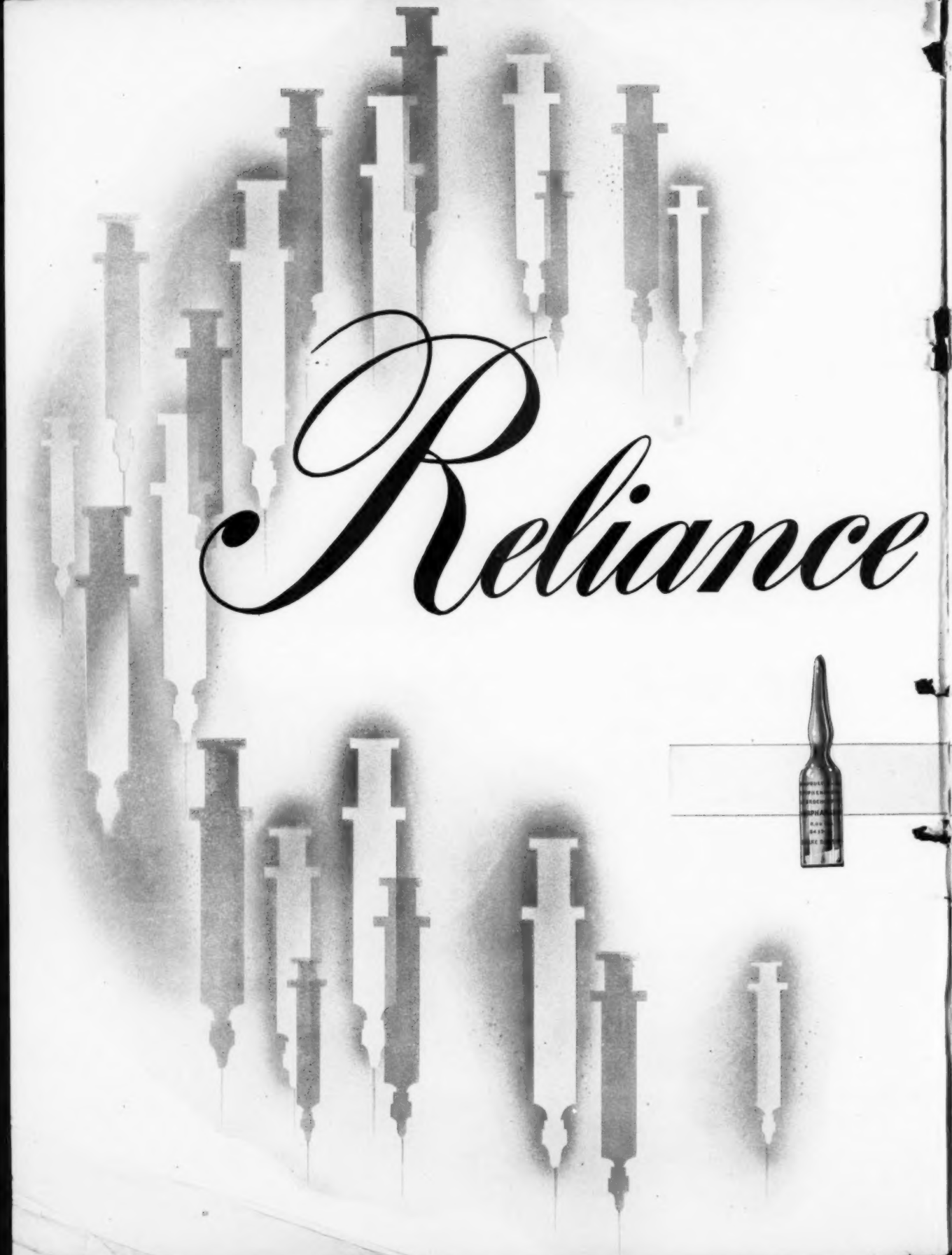
Journal of ARIZONA STATE MEDICAL ASSOCIATION

VOL. 5, NO. 6 NOVEMBER, 1948

SCIENTIFIC SECTION

MISCELLANEOUS SECTION

EDITORIALS


Reliance

Reliance on MAPHARSEN is reflected in its extensive clinical use—over 200,000,000 injections since 1940. The significant advantages of high therapeutic effectiveness and notable relative safety have established its value as an antispirochetal agent. Clinical and serological follow-ups continue to demonstrate its high percentage of cures. Equally adapted to intensive, intermediate or conventional prolonged treatment schedules, alone or with penicillin, MAPHARSEN is an arsenical of choice in the treatment of syphilis.

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MAPHARSEN (oxophenarsine hydrochloride, P D & Co.) is supplied in single dose ampoules of 0.04 Gm. and 0.06 Gm., boxes of 10, and in multiple dose ampoules of 0.6 Gm. in boxes of 10.

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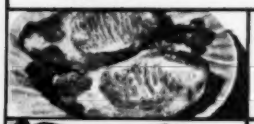
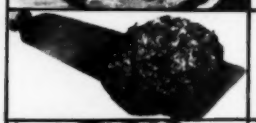
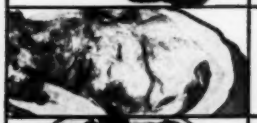
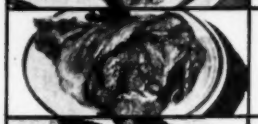
MEDICAMENTA VERA · PD CO.

The Abundant Nutrient Values of MEAT

KIND OF MEAT	COMPLETE PROTEIN	B VITAMINS			FOOD IRON
		THIAMINE (B_1)	RIBOFLAVIN (B_2)	NIACIN	
 PORK	EXCELLENT	EXCELLENT	FAIR	EXCELLENT	EXCELLENT
 BEEF	EXCELLENT	FAIR	EXCELLENT	EXCELLENT	EXCELLENT
 LAMB	EXCELLENT	FAIR	GOOD	EXCELLENT	EXCELLENT
 VEAL	EXCELLENT	GOOD	GOOD	EXCELLENT	EXCELLENT
 VARIETY MEATS (LIVER, HEART, KIDNEY)	EXCELLENT	EXCELLENT	EXCELLENT	EXCELLENT	EXCELLENT
 SAUSAGE (FRANKFURTERS, BOLOGNA)	EXCELLENT	GOOD	GOOD	GOOD	EXCELLENT

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As is readily seen in the chart above, every kind of meat is an excellent source of high quality protein and of iron. Meat further supplies significant amounts of the three B complex vitamins, thiamine, riboflavin and niacin. Certain cuts and kinds of meat are, as a matter of fact, among our richest food sources of thiamine and niacin. All meat, regardless of grade or cut, makes these contributions.

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ARIZONA MEDICINE

November, 1948 Vol. 5, No. 6
Published bi-monthly by Arizona Medical Association at 142 South Central Avenue, Phoenix, Arizona. Subscription $1.50 per year; single copy 25 cents. Entered as second class matter March 1, 1921, at Postoffice at Phoenix, Arizona, act of March 3, 1879.

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ESTINYL LIQUID, 0.03 mg. per 4 cc. (teaspoonful), in bottles of 4 and 16 oz.

BIBLIOGRAPHY: 1. United States Dispensatory, ed. 24, Philadelphia, J. B. Lippincott Company, 1947, p. 1446. 2. Wiesbader, H., and Filler, W.: Am. J. Obst. & Gynec. 51:75, 1946. 3. Allen, W. M.: South. M. J. 37:270, 1944. 4. Lyon, R. A.: Am. J. Obst. & Gynec. 47:532, 1944. 5. Groper, M. J., and Biskind, G. R.: J. Clin. Endocrinol. 2:703, 1942. 6. Soule, S. D.: Am. J. Obst. & Gynec. 45:315, 1943.

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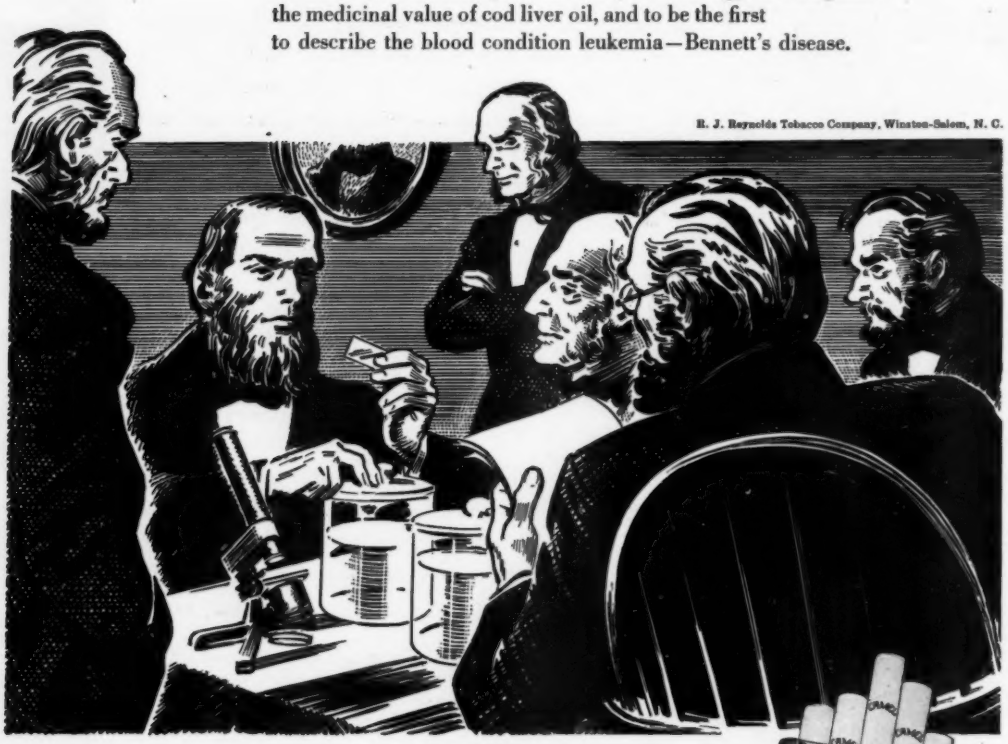

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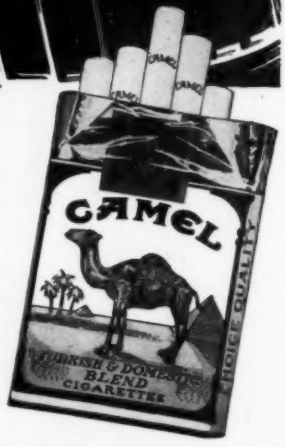

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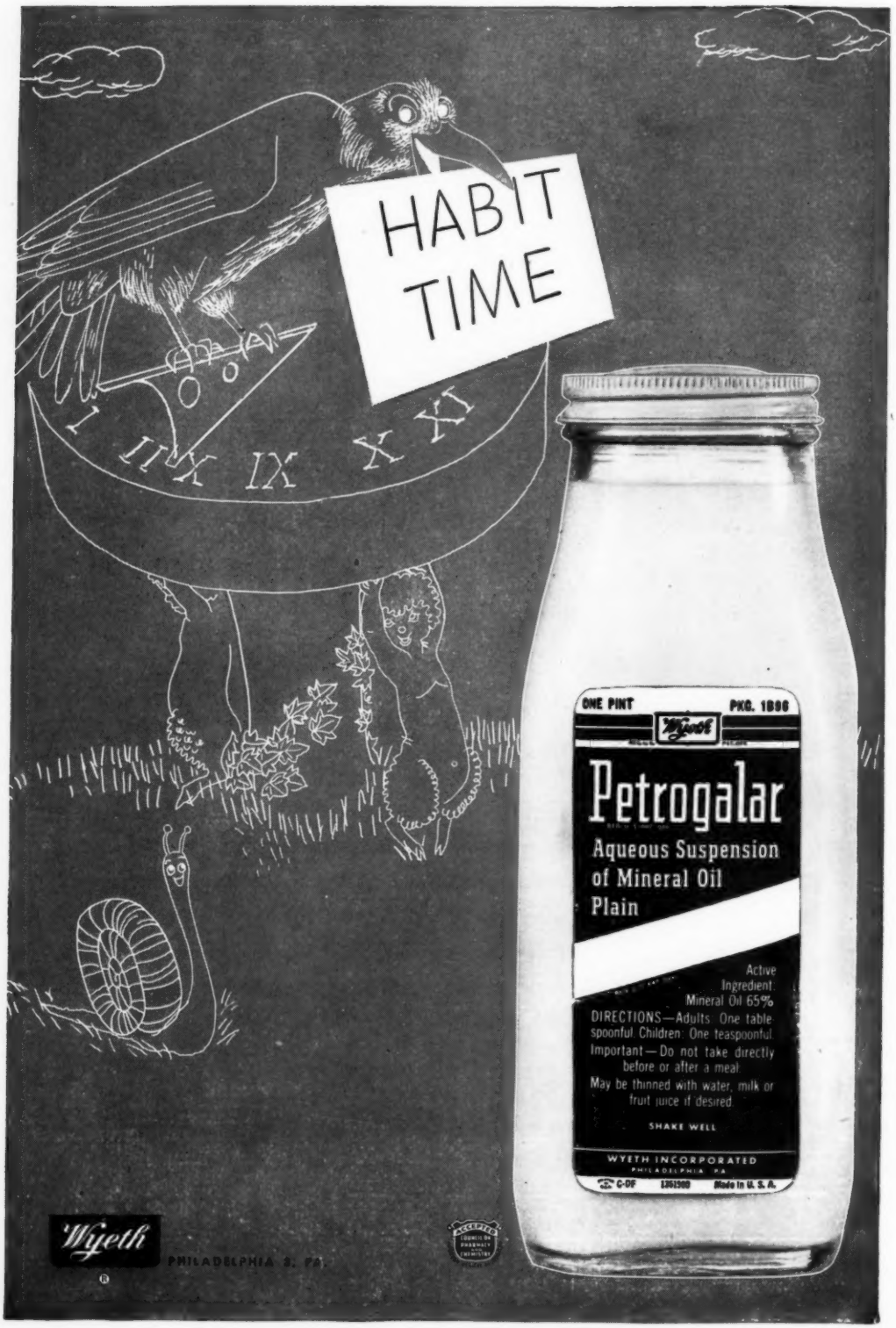
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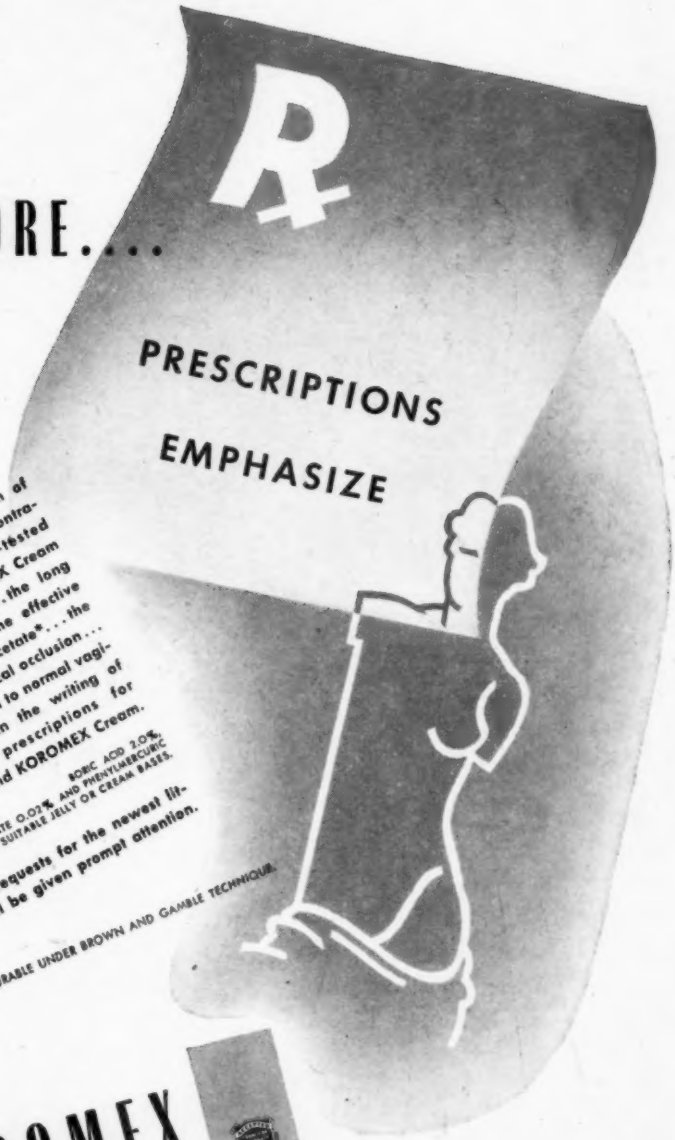

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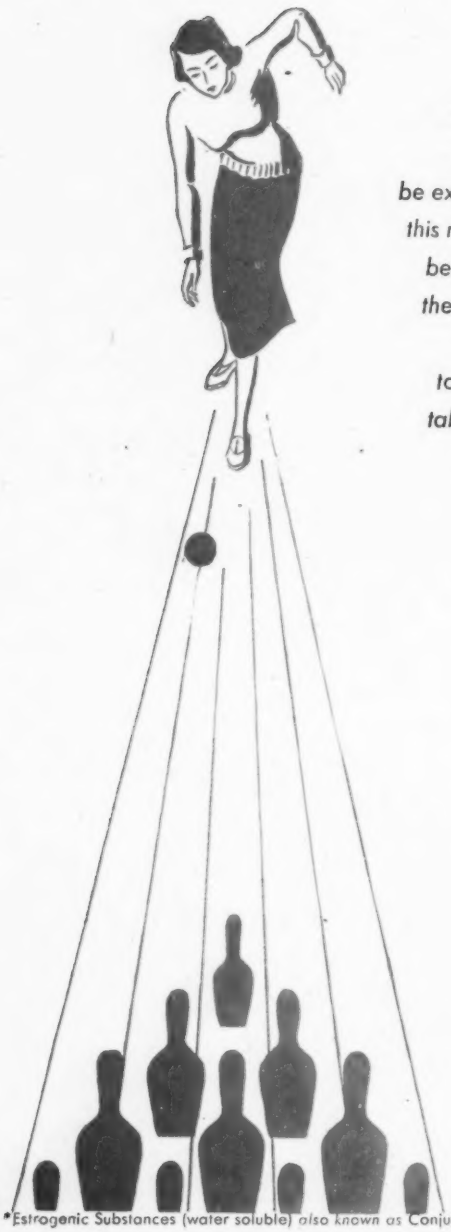

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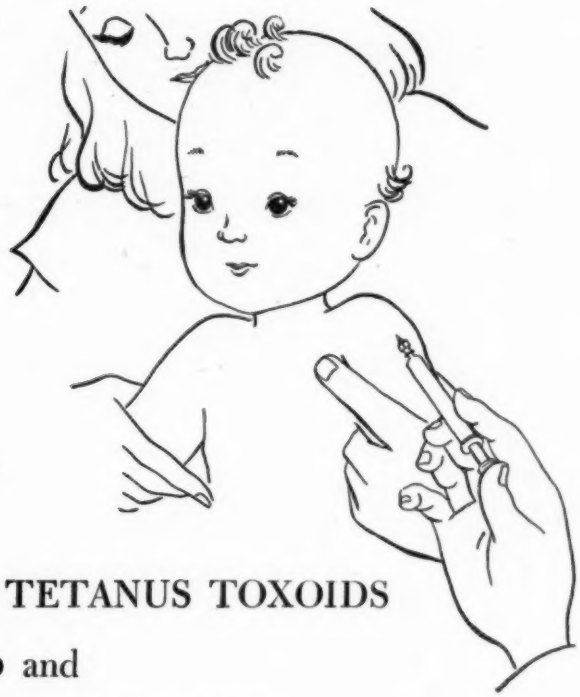

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Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60; Broc. Soc. Exp. Biol. and Med., 1934, 32,241; N. Y. State Journ. Med., Vol. 35, 6-1-25, No. 11, 590-592.

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*Beams, A. J., and Endicott, E. T., Histologic changes in the livers of patients with cirrhosis treated with methionine, Gastroenterology 9:718-735 (Dec.) 1947.

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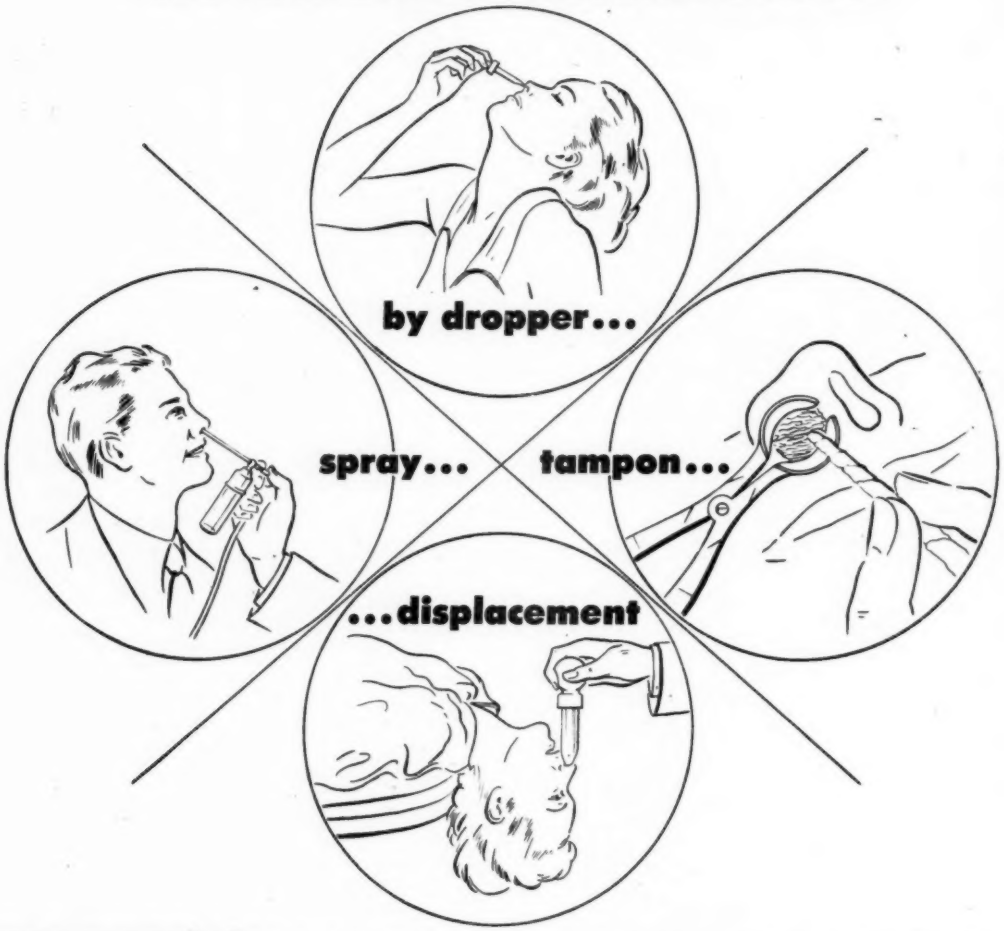

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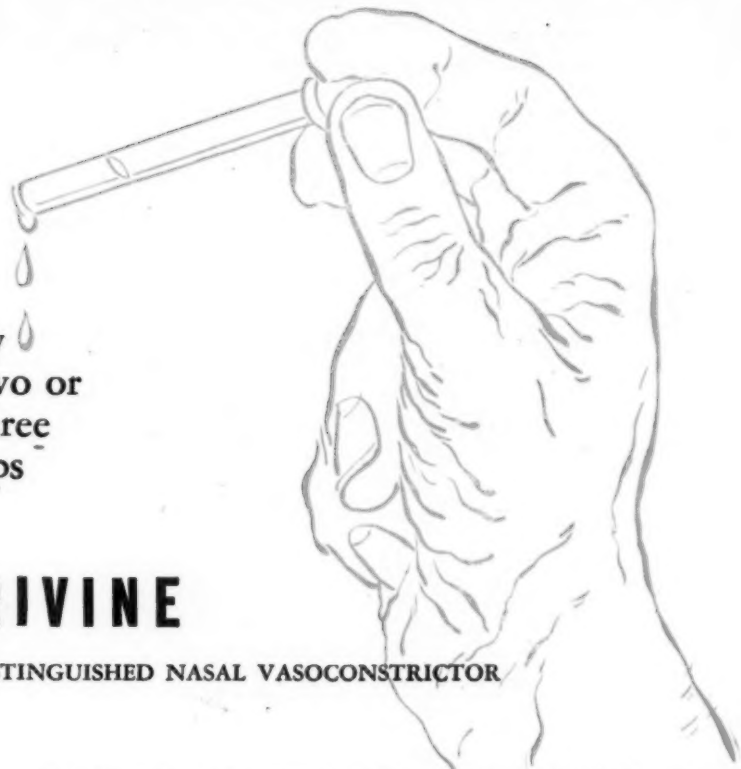

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*Downing, J. G., Hanson, M. C. and Lamb, M.: Use of 5-Nitro-2-Furaldehyde Semicarbazone in Dermatology, J. A. M. A. *133*:299, 1947. * Shipley, E. R. and Dodd, M. C.: Clinical Observations on Furacin Soluble Dressing in the Treatment of Surface Infections, Surg. Gynec. & Obst. *84*:366, 1947. * Miller, J., Rodriquez, J. and Domonkos, A.: Evaluation of Penicillin in Topical Therapy, New York State J. Med. *47*:2316, 1947.

When Whims and Fancies Obstruct Good Nutrition

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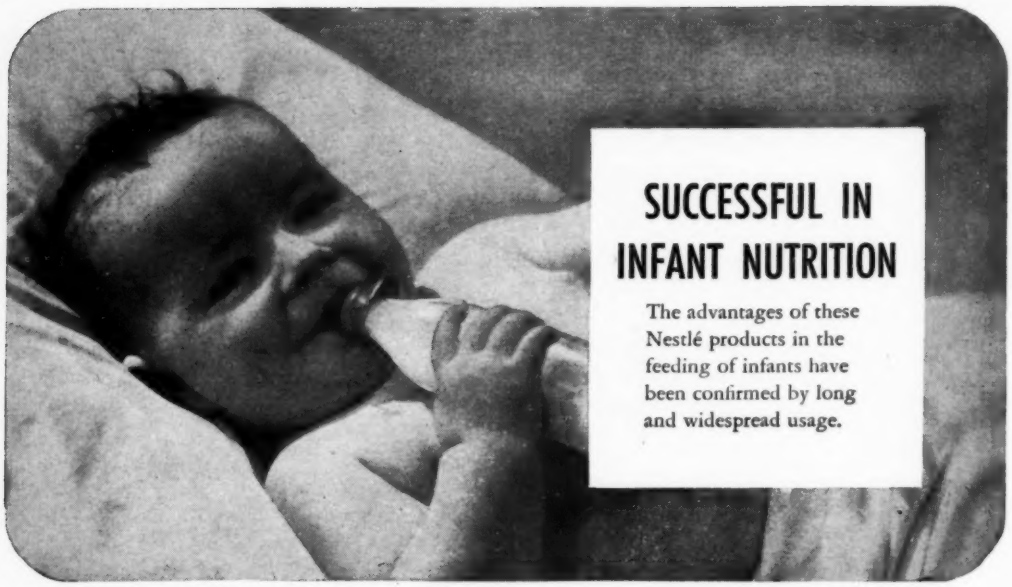

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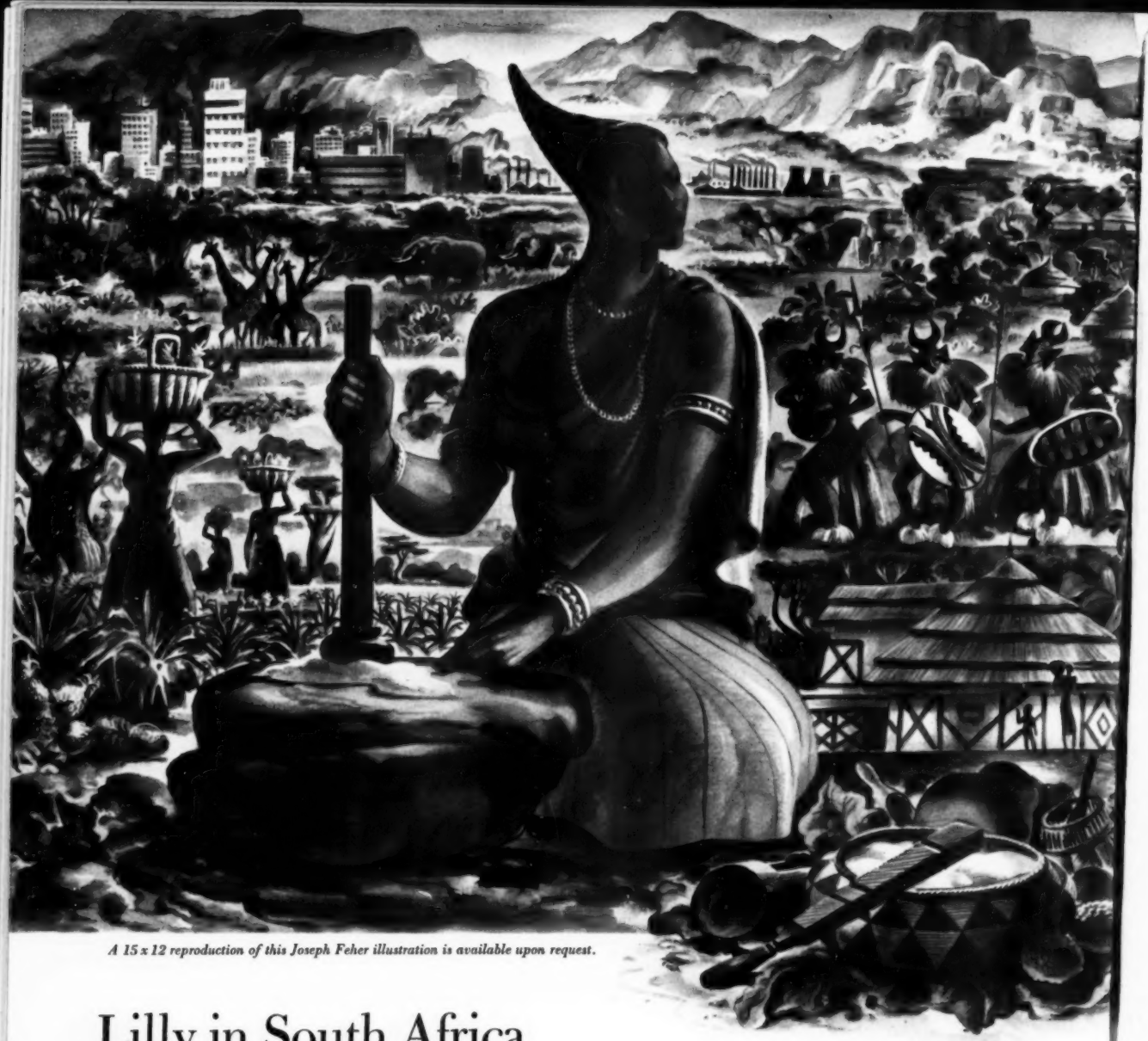

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Lilly in South Africa

LIKE many youthful countries, the Union of South Africa has in the past been dependent upon other nations for its physicians and medical teachers. Today, however, South Africa is producing its own scientific men and its universities are rapidly becoming centers of medical research. The heterogeneous population and the great variety of interesting biological and medical problems present an inviting field to the medical researcher.

Johannesburg was selected in 1938 as the headquarters of the first resident medical service representative of Eli Lilly and Company. Research institutions and the medical and pharmaceutical professions have since been regularly visited. Here, as elsewhere, the Lilly Research Laboratories offer the assistance of their staff on mutually interesting problems. It is hoped that physicians everywhere may by this means share in the practical benefits of South African medical research.

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NEWER ASPECTS OF STERILITY*

M. JAMES WHITELAW, M. D.
Phoenix, Arizona

ONE of the first references that was made concerning conception was that, "Rachel ate the mandrakes but remained barren for years, while Leah became pregnant without the mandrakes." (Genesis 30:14)

Since this time a good deal of knowledge has accumulated regarding therapy in the treatment of sterility. It has only been within the last few years that rapid progress has been made in the field due to the collaboration of many investigators in diversified branches of medicine. The more than a thousand articles that have appeared in recent medical journals as well as the dozen or more books that have partially or wholly been devoted to sterility are written proof of the interest and advances that have been made in the field. It is hoped, by the American Society for the Study of Sterility, that in 1949 a journal devoted exclusively to this problem will make its debut.

The overall picture that one receives from perusal of the literature may be summarized as follows: Every barren marriage must be treated as a unit with both members undergoing a complete examination which must entail not alone a painstaking and accurate anamnesis based upon our newer knowledge of the various causes of sterility, but also upon an accurate and careful physical examination as well as full utilization of laboratory tests where indicated. It follows from this that under no circumstances should therapy be instituted before a diagnosis is reached, as the indiscriminate and unscientific use of hormone preparations in the treatment of sterility not alone may be injurious to the patient[55, 10] but, of far greater significance, may lead to the product's falling in disrepute.

It has become increasingly evident that the preventative angle of sterility will occupy an even greater role. We know that the treatment of secondary amenorrhea has a poorer prognosis the longer therapy is delayed[33] and our sterility salvage will be less. It might also be noted that the later the menarchie starts, the earlier the menopause begins usually — thereby markedly shortening the child-bearing period.

In the adolescent boy, signs and stigmata of genital underdevelopment may well be the reason for some of our cases of oligospermia as well as azoospermia. (Fig. 1) I[56] have noted such cases. There is, therefore, the need of reviewing this whole problem and perhaps not waiting before instituting

The introduction of antibiotics has given us an enormous opportunity of saving many women who otherwise would have had tubal stenoses. When treating an acute salpingitis or appendicitis this aspect of the problem should not be neglected. Up to now the outlook in reconstruction of the Fallopian tubes has been most discouraging, most figures being below 15 per

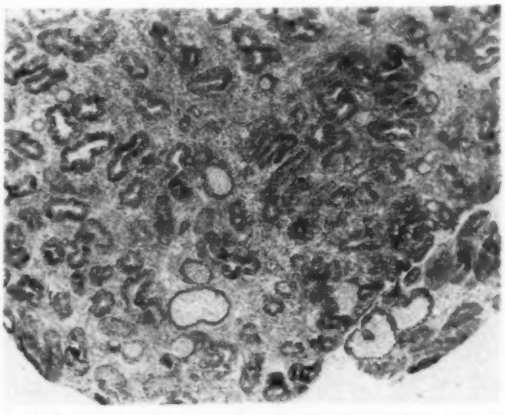

Fig. 1. Photomicrograph of a testicular biopsy of a 15-year-old boy showing complete absence of Sertoli cells and nearly complete replacement of tubules by collagen.

*Presented in part before the Maricopa County Medical Society, January 5, 1948.

cent, in the hands of very competent surgeons.[14, 16, 46, 47] It is true that here again the latest statistics of Rutherford[40] indicate that with the use of antibiotics pre- and postoperatively the end results are better. Time and space do not permit a more detailed discussion of this pertinent problem.

In any surgical procedure involving the uterus during the childbearing period, we perhaps should look back again on the brilliant results of conservative surgery with myomata and adenomyomata as performed by Bonney[5] and Borras.[7] As for ovarian conservation, here again Bonney[6] has been a pioneer, having stated twenty years ago that all innocent cysts (dermoid, follicular, chocolate and adenomatous) should be enucleated if feasible. Mathews,[24] Miller,[27] Marshall,[23] Bell,[4] and Meigs[25] have reiterated this, while Dockerty[13] in a review of 100 articles in the literature on the subject of ovarian neoplasms states, "When such small dermoids are encountered they should be shelled out without rupture and the resulting raw surfaces apposed with a minimum of fine suture material. Pregnancy has occasionally followed after such conservation of the ovarian tissue." It is true, as has been pointed out by Whitelaw,[37] that following unilateral oophorectomy in the young female under thirty the contralateral ovary will take over the physiological function as attested by normal temperature curves and endometrial patterns. It will repay us many times over to always try to conserve where possible ovarian tissue in women in the child-bearing age group.

The part that diet, as well as undue physical and mental stress, may play in the problem of sterility has been far better understood since the Germans first described Krieg's amenorrheas of World War I. Coghlan,[11] of Australia has shown that only 30 per cent of the returning soldiers from the Middle East have any chance of becoming fathers. General examination did not account for any of the low sperm counts. Since the end of World War II, he continues to get low counts in most returning men and war prisoners. My own experience with American war prisoners in Germany and Japan confirms these findings. Smith[45] in his study of severe malnutrition in Holland during the winter of 1944-1945 was statistically impressed by the commoness of amenorrhea and sterility and the striking reduction of the birth rate. We all have seen patients who after having adopted a child because of long standing sterility have conceived within a short time.

It is of paramount importance that we be able

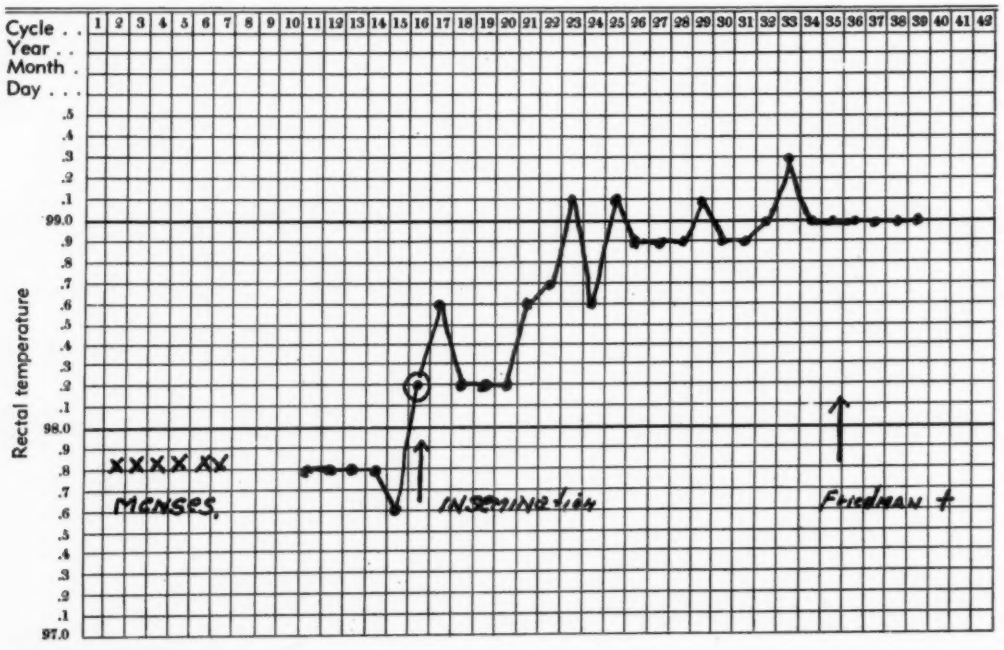

Fig. 2. Typical basal temperature curve showing a single artificial insemination following which pregnancy ensued. This indicates ovulation having taken place on the rise.

to determine the exact time of ovulation, for it has been shown by Rock[39] in his brilliant study of early gestation that the human ova is probably capable of fertilization for not over twenty-four hours. Various methods have been devised for making this determination.

It had been early noted by German authors that in a few women during the mid-interval phase Mittelschmertz was present. This may be bi-monthly, in which case it has always been noted by me to be on the same side, indicating in those instances alternation in ovarian ovulation. This pain is thought to be due to either the spilling of follicular fluid into the pelvic peritoneum or rupture of the cortex of the ovary. Mid-interval bleeding, either macro- or microscopic, has also been noted.[54] Even Vitamin C excretion levels[31] have been suggested for determining ovulation time. Inasmuch as the female genital tract undergoes cyclic changes, this has been utilized in trying to determine the time of ovulation. Tubal mucosal changes as well as cyclic variations in fallopian contraction rate have been described by Seckenger[41] and Whitelaw.[58] Recordings of myometrial contractions with the insertion of a balloon have been recommended by Karnaky.[20] The study of the endometrium on the first day of menstruation for evidence of secretory activity is a well-known, utilized, office procedure that has now withstood the test of time. Cyclic changes in both the cervical mucous plug and the vaginal mucosa have been investigated and reported by numerous authors, this latter test having been developed by Papanicolaou[30] and later modified by Shorr.[43] It is possible by the determination of the presence of pregnanediol in the urine to prove indirectly that ovulation has taken place. One of the simplest methods is that of cyclic basal temperature variations first noted by Van de Velve[51] in 1902. It remained, however, for Rubenstein[38] to suggest, on the basis of conception occuring at a given time in a group of women whose basal rectal temperature had been recorded, that ovulation probably occurred at about the time in the cycle when the waking rectal temperature is at its lowest point which it attains during the cycle. These findings have since been substantiated by many authors, although there is disagreement among us as to whether ovulation takes place at the drop or rise in the curve. (See Fig. 2) It is not, however, pointed out in the literature that there are many women whose endometrial biopsies and vaginal smears indicate a normal cycle yet whose basal body temperature curves are atypical.[59] (See Fig. 3)

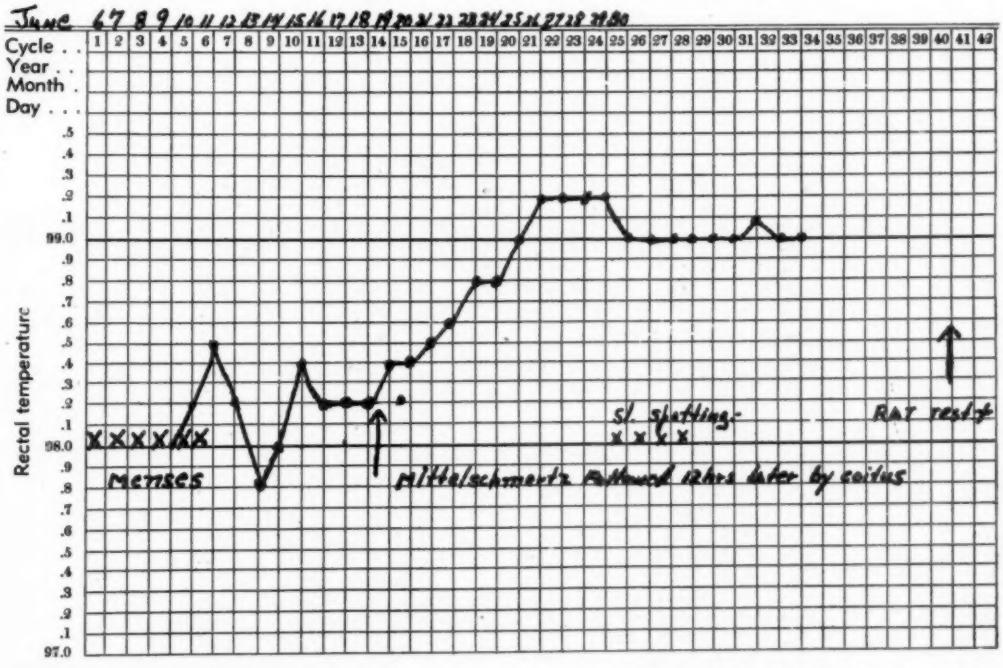

Fig. 3. An atypical basal temperature curve of a R. N. illustrating a triphasic type of curve and a plateau effect before ovulation, as coitus was only consumated at time indicated.

The exact mechanism in the hormonal control of ovulation is not perfectly understod. Several isolated instances of ovulation by injection of FSH in Rhesus monkeys have been reported by Hartman.[18] He has also been able to induce ovulation by equinine gonadtropin in rare cases. It is known that a definite relationship must exist between FSH and ICSH in order to bring about ovulation. Within the past few years it has been possible to isolate five pituitary hormones, but one of the amazing discoveries has been finding that there is a species specificity. Anovulatory cycles in regularly bleeding women are found in approximately 5 per cent of the sterility cases examined. Fortunately, it is only rarely, if ever, present for four or more consecutive months[57] in this type of patient.

It is probable that within the next few years, with pure hormones available, it will be possible to induce ovulation in the human. It is, however, timely to point out the dangers inherent in the use of products such as equinine gonadotropins, etc., which may actually induce a gonadotoxic effect on the ovary, as has been shown at laparotomy,[1] and so contribute further to ovarian pathology and sterility.

Inasmuch as nidation normally has to take place in the tubes, these must be intact physiologically and anatomically. The basic studies on these points date back to Cary[9] and Rubin's[34] introduction of radio-opaque substances in 1914 for visualization of the fallopian tubes, followed by Rubin's[35] now classical demonstration of peruterine insufflation. There has ensued throughout the years an academic discussion on the relative merits of these two techniques in the study of sterility. After a quarter of a century's comparison it is fairly well agreed by most men that in the routine sterility examination of the female the Rubin Test ALONE should be utilized. To quote Titus,[49] "In the first place, too many hysterosalpingographies are being performed. This procedure should not be substituted, as so many do, for tubal insufflation (Rubin Test), but should be restricted to those patients in whom the desired information cannot be obtained by the Rubin Test."

Rubin[36] himself states, "In uterotubal insufflation of carbon dioxide gas added by a kymographic apparatus and volumeter, we have available, meanwhile, a simple, safe and scientific method for determining without surgical intervention the fact of tubal patency and non-patency. The discovery of the various degrees of stricture and peritubal adhesions is its secondary but no less important contribution. Not only are they readily diagnosticable by uterotubal insufflation, but they also yield frequently to its therapeutic action. For this, if for no other reason, it bids fair to continue the method of choice as a test for tubal patency." Inasmuch as sperm and ova transport are vital problems in nidation and both are, according to Sturgis[48] and Whitelaw,[60] mainly influenced by tubal peristalsis, it follows

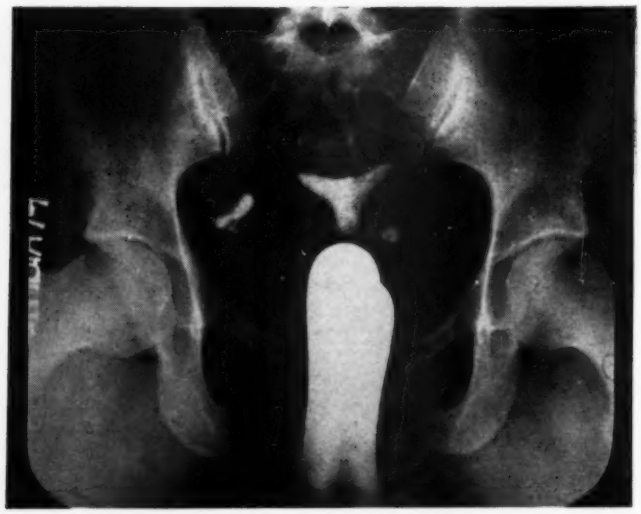

Fig. 4. Hysterosalpingogram illustrating bilateral occlusion at the fimbria. Salpingolysis and circumcision operation performed.

that any method that will give us added data on tubal contraction will aid us in our understanding and treatment of sterility.

One or even two negative Rubin Tests are not definite proof of tubal closure but may be due to spasm. This condition is sometimes ameliorated by preparing the patient with male hormone as suggested by Abarbanel.[2] It is most unfortunate to tell a patient that her tubes are occluded, only to have her return several months later pregnant. If complete stenosis is present, localization is indicated. Because lipiodol has been shown to remain in the peritoneal cavity for as long as six months after administration, as well as the fact that J. Novak[29] reported in one case at laparotomy performed fifteen months after lipiodol injection that both tubes on removal were thickened and adherent, while the microscopic sections showed abundant iodine in organic combination, a radiographic media that would meet Neustadter's tenants was searched for. Titus[50] brought out skiodan and acacia. Rubin[37] developed Rayopake, a crystalloid iodine in polyvinyl alcohol. This product has now been in the research clinics of this country for over five years and has been shown by Warren,[52] Whitelaw,[61] and others[15, 28] to be superior to lipiodol. (Fig. 4) Iodized oils definitely are contraindicated in sterility studies.

In the routine examination of the uterus, hysterometric determination should be made, as it has been shown that a small uterus on bimanual palpation may not necessarily be infantile. Suction biopsy for study of the endometrium should only be carried out the first day of bleeding, to avoid the interruption of a pregnancy. It is economically unsound to subject these patients to the added load of a D and C done in a hospital; the information obtained being the same. Rock has indicated that faulty implantation may result in abortion where the endometrium is not absolutely normal, and we know that two to three times as many relatively sterile women abort as compared with normals. Where the endometrium is low or of the mixed type, an attempt should be made to correct it. Suction biopsy may also give us added information, as, for example: tuberculosis or submucous fibroids.

It was noted by Seguy and Vimeaux[42] in 1933 that there was a cyclic variation in the mucous secretion of the cervix. This has been studied in detail by Pomerenke and Viergiver,[32] as well as

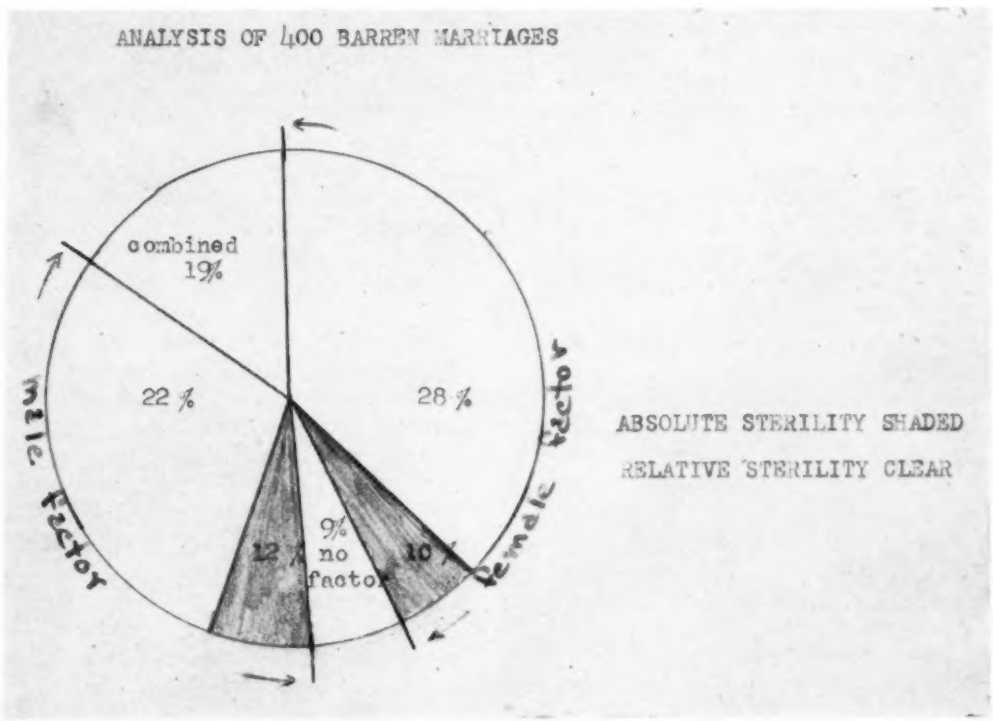

Fig. 5. Analysis of 400 Barren Marriages.

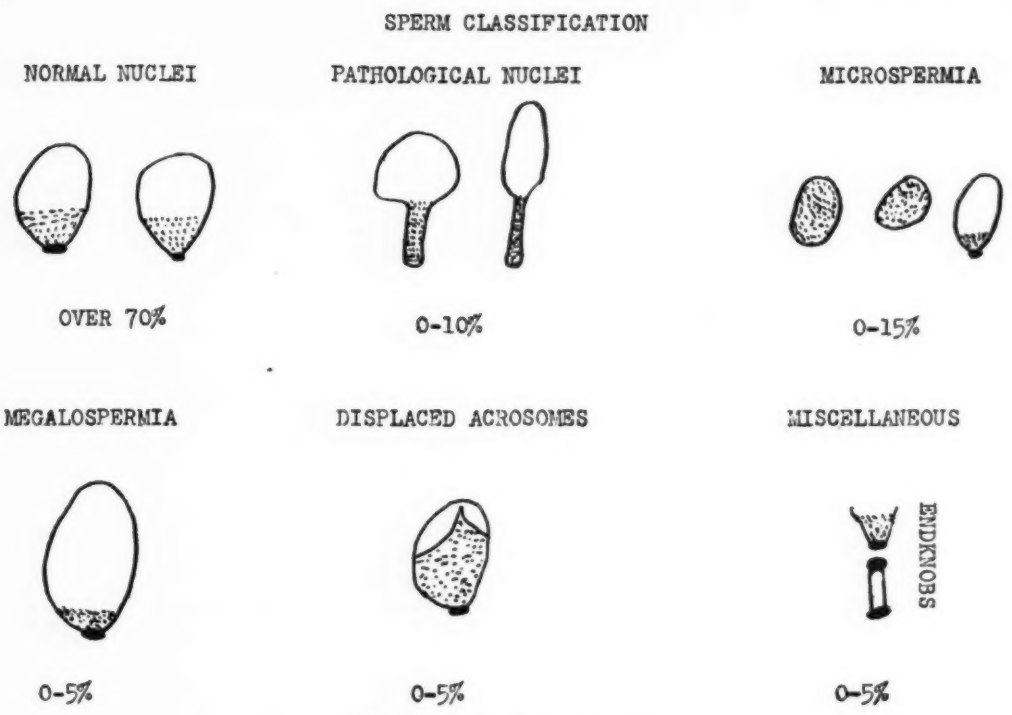

Fig. 6. Sperm Classification.

Abarabanel[3] who pointed out that about the time corresponding with ovulation there is: 1, a marked increase in the amount of cervical secretion; 2, a decrease in the viscosity; and 3, leucocytic disappearance. The evidence indicates that this clear mucous plug at midcycle is due to estrogen stimulation. It has been noted that the chemical analysis of the cervical secretion at this stage shows it to be very similar to that of the semen. It must be emphasized that it is only during this period that it has been demonstrated that sperm are freely capable of penetrating the cervical secretions.

It may, therefore, be noted that the question of sperm transport such as that reported by Brown,[8] in which only one hour transpired for passage from the cervix to the fimbria of the tube, is open to marked criticism because such experiments were done on extirpated specimens and, of greater importance, were not carried out at ovulation. The Huhner test,[19] which was first described in 1913, consists simply in the examination of the cervical mucus for presence of sperm several hours after coitus. It follows from the above that a diseased endocervix or cervix will alter the cervical secretions, and this will of itself act as a barrier to sperm penetration. Secondly, though of equal importance, endocervicitis may be the cause of adnexial disease. In cauterizing a cervix, it is best to keep the above factors in mind. During the past few years it has become apparent that the study of ovarian and tubal activities under direct observation might perhaps lead to a better understanding of the problem. With this in mind, Decker[12] of Roosevelt Hospital, New York, devised a culdoscope which, by means of a tenaculum on the cervix and having the woman in the knee-chest position, gives nearly complete visualization of both tubes, ovaries and uterus. No one has reported untoward reaction with this method.

Up to recent years the male has been neglected in our study of sterility, it having been assumed that the woman was always at fault. We have since found out, under careful appraisal and scrutiny of the male, that in the study of the barren couple as a unit the figures reveal a slightly greater than 50 per cent fault being due either partially or completely to the male partner. My statistics in the last 400 barren marriages reveal 53 per cent. (Fig. 5)

In the examination of the male it should be

emphasized that the ejaculate be procured in a clean container. It is not necessary or desirable to bring the specimen in a warm water bath or carry it next to the body, as so frequently happens. A condom specimen is unsatisfactory. It is necessary to examine the ejaculate for the following: amount, viscosity, pH, number of pus or other abnormal cells, and hemospermia. The sperm themselves should be counted, their motility studied for at least six hours, and their morphology carefully investigated under 12-1500 magnification,—as pointed out by Williams.[63] (Fig. 6) Only by a complete and careful study can an adequate appraisal of the male be made. Slipshod methods of analyses or examinations done by persons not adequately trained are to be condemned. In lowered counts and where physical examination indicates it, 17 ketosteroid and FSH determinations should be done. In oligospermia the author has had success using a cervical cap.[62] Azoospermia, or absence of spermatozoa in the semen, is a common finding. Azoospermia may be due to defective production of spermatozoa (Fig. 7) or to a complete obstruction of the passage ways. In the latter case, operative treatment may be indicated in clinical types of block. The most common cause for obstructive lesions is a Neisserian infection in which approximately two-thirds show blocking of both sides, the remainder having unilateral obstruction. Trauma may be a cause of nonpatency in a small percentage of cases; in others no etiology has been determined for the nonpatency. Congenital absence of both vasa has been reported by numerous authors. An operation to reconstruct the constricted canals for the re-transportation of the spermatozoa is only indicated when it has been determined that a normal testicle is present. In azoospermia a testicle with normal spermatogenesis can be diagnosed only after physical examination and testicular biopsy has shown this is true. (Fig. 8) Although it would be well to be able to determine beforehand the degree of block and the extent of the disease process in the ductal system, this can be determined only at the time of operation. The first successful anastomosis of the ductus deferens and epididymis was done by Martin in 1902. It is now being done by several surgeons interested in this type of work. Treatment of these cases with hormones is not alone unscientific but may lead to actual destruction of the seminiferous tubules. Where biopsy indicates irreparable damage or disappearance of tubular components no therapeutic measures, hormonal or otherwise, can restore fertility. It is well for us to recognize our limitations.

Hyaluronidase, a mucopolysacharide, was first described as being present in the testicles of bulls byMcLain and Rowlands[22] in 1942. It has been shown that this substance will disperse the follicular cells surrounding the ova. It was noted also by Kurzrok[21] that the concentration of hyaluronidase fell to a very low figure when the sperm count went below 50,000,000. Clinically, however, application of this substance to the cervix has been disappointing.[44] There is some indication that it may be used eventually for a test of epididymal and vas patency in azoospermia.[26] Where it has been demonstrated

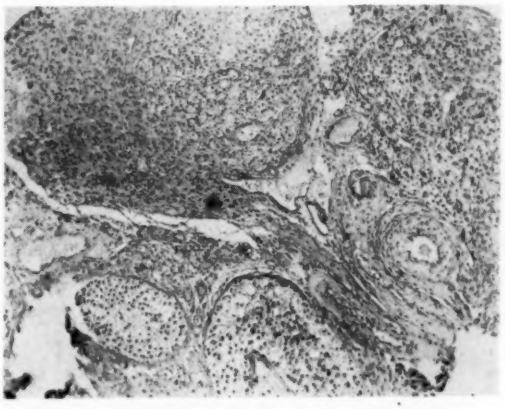

Fig. 7. Photomicrograph of a testicular biopsy showing complete aspermatogenesis. Normal sertoli cells. 17 Ketosteroid = 11.2 mg. Gonadatropins = 200 Mouse Units.

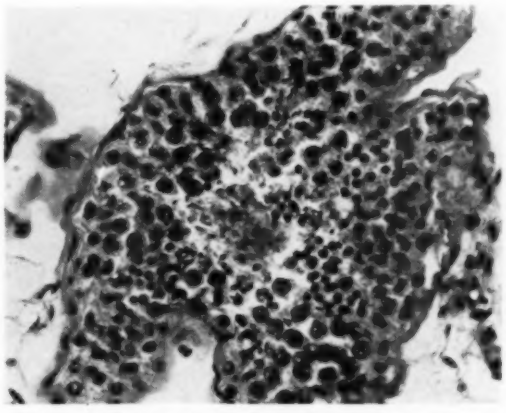

Fig. 8. Photomicrograph of a testicular biopsy of a patient who had azospermia demonstrating normal spermatogenesis. Vaso-epididymal anastomosis indicated.

beyond doubt that the male partner is sterile and the wife appears normal, artificial insemination has in many instances been utilized with success. The medicolegal aspects as well as other points have been brought out by Weisman[53] and Haman.[17]

Many problems remain unsolved or only partially unraveled in this field of sterility. This brief resume has failed to touch on numerous studies that are now in the experimental stage but from which we all hope that a clearer understanding and a more rational approach will be made in our treatment of the barren marriage.

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RHEUMATOID ARTHRITIS

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RHEUMATOID arthritis is a systemic disease of unknown origin with many generalized manifestations. It is characterized by inflammation of articular and periarticular tissues which lead to muscular spasm with atrophy, ankylosis and deformity. Hence, it derives the name "arthritis deformans" from the deformity produced and the name "atrophic arthritis" because of the atrophy ultimately evidenced even early in the disease, "infectious arthritis" from its possible relationship to infections.

From medical history we find that arthritis is by no means a new disease, but probably the oldest disease of which we have evidence.[16] Pemberton and Osgood[22] have collected references of chronic arthritis in fossils dating back 600,000,000 years. Atlases of plates covering mummies of all periods from the Pre-dynastic to the Byzantine, show that syphilis, cancer and rickets were unknown, but that rheumatoid arthritis was known, in spite of the fact that it was thought to be essentially an environmental and not a racial affliction.[12, 23]

Probably no other disease presents a more difficult problem from the standpoint of etiology, chronicity, deformity and treatment. Rheumatic disorders lead all other chronic and incapacitating diseases in invalidism with the exception of mental diseases.[26] The prevalence of rheumatic disorders is almost twice that of heart disease.[26, 4]

ETIOLOGY

The cause of rheumatoid arthritis is unknown, however, some methods of classification attribute it to probable infections. The etiological factors in the production of atrophic arthritis may be considered under five main headings.

1. *Constitutional Predisposition.* Undernourished, nervous, ptosed females usually in the third to fifth decade with a family history of rheumatism are more likely to be affected. These patients are generally of the asthenic body type. Hereditary factors have not been definitely established, but there appears to be a familial tendency. Females are affected approximately two or three times to one male, except in rheumatoid spondylitis where the male is affected in a larger majority of the cases, the ratio being about nine to one.

2. *Precipitating Factors.*[4, 5] Exposure to changes in climate such as variable barometric pressure, coldness, and dampness have a definite aggravating influence. Rheumatoid arthritis is more prevalent in occurrence and in exacerbations during the changeable weather of the spring and fall. The incidence is probably lower in the tropical climates. Excess fatigue from overwork or from lack of rest, as well as chronic infections[8] of teeth, tonsils, gallbladder, appendix and other foci of infections have been incriminated as precipitating factors. Too frequently the foci of infections have been removed with results that were not too encouraging. Trauma may aggravate already existing postural defects, causing lowered resistance where this affliction may later settle.

3. *Dietary Deficiencies.* No one food has been proved as the cause of a specific etiological disturbance. However, lack of a well balanced diet and deficiency of minerals and vitamins as well as mal-intestinal absorption must be considered as influencing the disease. Vitamin deficiency is regarded more as a result than as a cause for arthritis.

4. *Endocrine Disorders.*[7] All of the endocrine glands have been considered, but, again, no proved specific disturbance can be found as a cause for rheumatoid arthritis.

5. *Psychiatric Factors.*[4, 5, 21] These factors are gradually and rightfully gaining more prominence and they may be approached from two angles. The first is the personality type of individual; this may vary, yet the majority of the patients are over-active, tense, and of a worrying nature. The second approach is by way of precipitating emotional factors. These are precipitated by worry, emotional strain, family disturbances and social failings. Maladjustments to surrounding conditions may intensify the reactiveness of a person and precipitate arthritic symptoms.

PATHOLOGY OF JOINTS[8, 9]

The outstanding pathological changes are found in the joints, but the systemic nature of rheumatoid arthritis is manifested by a wide

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range of pathology found throughout the body. The degree of pathology depends on the stage of the disease present at the time of examination.

The earliest local findings are peri-articular swelling and edema. Later there is hyperemia and lymphocytic infiltration with formation of lymph follicles in the sub-synovial tissues. This produces a thickening and a roughening of the synovial membrane and its villi. The hypertrophied membrane becomes covered with granulation tissues which forms a pannus. This spreads from the joint margin inward, gradually covering the joint cartilage. As this process slowly proceeds, the inflammation spreads to the surrounding cartilage, which the pannus invades. At this stage the fibrous tissue formation causes adhesions between joint surfaces and between the joint and the capsule. As a rule, effusion into the joint space occurs from time to time after the inflammatory process has begun. There is cartilage erosion from the joint surface. The bone cortex adjoining the cartilage becomes atrophied and may show marked osteophorosis. In severe or advanced cases the fibrous ankylosis formed by the adhesions and the pannus frequently becomes ossified, producing bony ankylosis with occasional dislocation.

Spinal involvement by inflammation and ankylosis of the sacroiliac and costal vertebral articulations is frequent. Spondylitis is gradually produced by bone fusion of the vertebrae. Calcification slowly progresses in the interspinous and paravertebral ligaments. This may produce irritation around the nerve trunks entering and leaving the spinal canal and, as a result, the irritation restricts spinal movements and causes spinal nerve neuritis. Softening of the vertebra by rarefaction usually accompanies this process. Pathological conditions involving the skin, skeletal muscles, nerves, arteries and lymphoid tissues will not be discussed, however, these pathological findings are further evidence of the generalized nature of rheumatoid arthritis.

CLINICAL SYMPTOMS AND DIAGNOSIS

The onset[27] of rheumatoid arthritis may be abrupt with elevated temperature and inflammatory polyarthritis in approximately 10% of the cases. It may be of short duration and end with little or no residual damage, or, it may assume a sub-acute or chronic course. However, in about 90%, the onset is more commonly of an insidious nature and assumes a febrile or low-grade, sub-acute, chronic course. Rheumatoid arthritis is characterized by remissions and exacerbations, although it may be continuous and progressive in a few cases.

The severity cannot be classified on the length of the time the disease has been in existence, but more on the intensity of progress. Far advanced stages may be reached in six months to six years or more. Early or moderately advanced cases may remain so for years with remissions at any time. Rheumatoid arthritis may be divided into four stages as follows: 1. Prodromal; 2. Early; 3. Advanced; 4. Terminal.

1. *Prodromal.*[9, 27] The patient with rheumatoid arthritis frequently complains for weeks before clinical evidence becomes apparent. The complaints are of general malaise, tiredness, lack of stamina, ease of fatigue, exhaustion, tachycardia, loss of weight, chilliness and nervous symptoms such as anxiety and tension.

2. *Early Symptoms.* The above subjective and objective complaints become progressively more severe.[5] Probably anorexia, loss of weight and general debility are the most pronounced. Vasomotor symptoms of cold, sweating, tingling and numbness in the fingers and toes or even the entire extremity may be present. This stage is usually insidious and slight swelling of one or more joints occurs. The tendency is for progression from the peripheral joints centrally.

3. *Advanced Symptoms.* It is convenient to divide this state into three subdivisions: early advanced, moderately advanced, far advanced.

There is a gradual, insidious transition from the early to the advanced stage. The local joint manifestations become more pronounced, as do the systemic complaints. The joint involvement is more often symmetrical, and consists of swelling, tenderness, stiffness and limitation of motion from slight to severe degree. The frequency of the joints involved[9, 27] in rheumatoid arthritis are fingers, wrist, knee, elbows, ankles, shoulders, hips, temporomandibular, toes, spine and sterno-clavicular. Although, any combination of joint involvement or generalized affliction may occur. The periarticular swelling of the proximal inter-phalangeal joints with atrophy of the interosseus muscles produces the typical spindle or fusiform appearance when the fingers are involved. When the hands are involved, atrophy of the thenar eminence is frequently present. Severe damage to the metacarpophalangeal joints produces the often seen ulnar deviation of the

fingers. Muscular atrophy and spasm is always present during the early and late stages, depending upon the joints involved. There is frequent collection of fluid in the joint bursa; this comes and goes. It is usually worse during stormy weather, current infections, and nervous tension. This also holds true for intensity of pain and for stiffness. Weight loss is a persistent factor, and nutritional deficiencies may appear. Severe night sweating may be present during the acute phases.

Subcutaneous nodules are present in about five to twenty-five per cent of the cases.[9, 27] Skin lesions are to be considered more or less incidental, except for atrophy of the skin over the phalanges. Psoriasis occurs in about three per cent[9] of arthritic cases, however, the full understanding of this relationship is not clear. Lymphadenopathy, generalized or localized, is frequent, depending mostly on the joints affected.

Still's disease is a varient of rheumatoid arthritis found in childhood, with which is associated generalized lymphadenopathy and splenomegaly.[27] This is closely related to Felty's syndrome in the adult where rheumatoid arthritis, leukopenia, lymphadenopathy, splenomegaly, secondary anemia and occasional yellow-brown pigmentation of the skin is present. Marie-Strumpell's disease may develop at any stage, and is more common in men than in women, the ratio being approximately nine to one. This latter disease may become arrested, but as it becomes more advanced, the likelihood of this becomes less. A general statement[9] may be made that approximately 25% of all rheumatoid arthritic patients will get well without any particular treatment. Twenty-five per cent more will improve, and another 25% will remain about the same, while an approximate five to ten per cent of these patients will become progressively worse, in spite of any therapy or lack of therapy.

4. *Terminal Symptoms.*[27] Here the disease has been arrested or worn itself out, having evoked the damage. This may vary from mild joint deformity with practically no disability to most extreme flexion deformity by ankylosis, muscular atrophy or spasm, which prevents adequate joint articulation. General weakness, ankylosis and emaciation may keep the patient bedridden or confined to the wheel chair for the rest of his life. It may be stated that few arthritic patients die from arthritis.

LABORATORY DIAGNOSIS

If the onset is acute, mild or moderate, leukocytosis may be present, but the total white blood count usually falls within the normal limits. However, over 90% of all cases with activity have an increase in the immature polymorphonuclear leukocytes. In chronic or Felty's syndrome, the total leukocyte count may be low. Most of these cases exhibit a hypochromic secondary anemia.[4]

Sedimentation Rate. This is elevated in over 90% of all active cases of rheumatoid arthritis; although it may remain elevated when all clinical evidence of activity has disappeared. The sedimentation rate[4] becomes elevated early and may range from moderate to marked elevation.

Synovial Fluid. The fluid in joints with activity may show average leukocytosis of 10,000 to 37,000 per cu. mm. with polymorphonuclear leukocytes predominating.[18] Cultures are not helpful, except to exclude other diseases.

Agglutination Test. About 45-76% of the serum of all patients with rheumatoid arthritis gives a positive agglutination of streptococci in a high titer if the disease has been present for several months.[6] This titer may fall as improvement occurs. Antistreptolysins and antifibrinolysins are not noticed, as a rule, in rheumatoid arthritis, but are usually present in rheumatic fever. This is important as a differential diagnostic procedure.

Blood Cultures. These have not proved of any help, except for the purpose of differential diagnosis.

Gastro-Intestinal Studies: In rheumatoid arthritis the incidence of achlorhydria tendency is increased. Damaged liver function or gallbladder disease has been reported to be present in approximately 72% of the cases.

X-Ray.[4, 27, 2] In the early stages of the disease there may be no particular roentgen evidence, except for manifestations of soft tissue swelling. As the disease progresses, various stages of ankylosis may be found. Bone atrophy adjoining the inflamed joints is evident. The joint spaces become narrowed, and occasionally are obliterated.

DIFFERENTIAL DIAGNOSIS

A diagnosis of "rheumatism" or "arthritis" without specifying its type is not justifiable. Rheumatoid arthritis may or may not present a clearcut picture. The most commonly confused

diseases are rheumatic fever, gout, gonorrhea-arthritis, osteo-arthritis, fibrositis, and undulant fever with joint manifestations. However, innumerable other diseases may give arthritic symptoms which may be confused with rheumatoid arthritis. If the nature of these diseases is considered and the various laboratory examinations are studied, the differential diagnosis is greatly enhanced.

TREATMENT

There is nothing startling about the treatment of rheumatoid arthritis. On the other hand, treatment is most discouraging, since there are innumerable and unsound therapies. Because there are so many different therapies for this disease, it may be said without reservation that none of them accomplish the desired result. Most of these suggested treatments are conspicuous for what they do not accomplish. Improvement from any form of treatment is studied in periods of months or years, instead of days, as in other diseases where there are more specific drugs. Probably the number one stumbling block toward successful treatment of this malady is the lack of knowledge of the etiology. In treating one with rheumatoid arthritis the physician should explain to the patient that a miracle is not to be expected, but, that with cooperation and with a carefully planned routine, which may need changing at times, the prognosis over a period of months is good in about 75% of the cases. Probably the first important therapeutic step is to establish confidence in the patient and to continually encourage him. These patients have many rightful questions, and it is helpful to them and to the physician if time is taken to answer the questions and to understand the patient. The individual needs treatment as much as the disease. Much helpful information has been accumulated in the past that should enhance the treatment of rheumatoid arthritis. The treatment for rheumatoid arthritis may be divided into the following groups:

I. General Therapy
   a. Physical and mental rest
   b. Physical therapy
   c. Analgesic therapy
   d. Constitutional therapy
   e. Orthopedic therapy
II. Supplementary Therapy
   a. Foci of infection
   b. Chrysotherapy
   c. Climatotherapy
   d. Roentgentherapy
   e. Nicotinic acid therapy
   f. Fever therapy
   g. Foreign protein therapy
   h. Endocrine therapy
III. Doubtful Therapy
   a. Vitamin D. therapy
   b. Vaccine therapy
   c. Iodides and arsenicals and sulfa preparations
   d. Dietary fads
   e. Venom therapy
   f. Prostigmine therapy

I. GENERAL THERAPY—

a. *Physical and Mental Rest.* The importance of bed rest in the acute stages of rheumatoid arthritis cannot be overestimated, but passive and active joint motion should not be discouraged. It is important that these diseased joints be exercised through the fullest range of motion short of causing an aggravation of pain or producing trauma. These inflamed joints need rest and should be used as little as possible, except as indicated above. This is particularly true in weight-bearing joints. The mild exercise is to maintain as much joint motion as possible, as well as maintain muscular tone. It should be carried out as long as clinical and laboratory evidence of acute activity is present. However, in the majority of cases in office practice, this is impractical. The graduated activity should be allowed as soon as reasonable evidence of quiescence of the disease is present.

Mental rest from worries, responsibilities, and emotional disturbances should be eliminated whenever possible. Economic and social handicaps may be a very important barrier to somatic improvement. A certain amount of psychotherapy is essential in handling these patients because they usually develop such nervous complaints as self-pity, lack of confidence, irritability and a pessimistic attitude. It is important that the patient be told of any improvement, whether clinical or laboratory, when it occurs. They should not have the feeling, if present treatment fails, that there is no other therapy to fall back on. They should be questioned closely regarding relationship with their family, friends and associates. They should be made aware of any existing conflicts, resentments or any other maladjustments, and these should be corrected whenever possible.

b. *Physical Therapy.* This is a very important aid when used with care and regularity. In the acute stages only, heat should be employed,

probably most relief coming from the application of hot fomentations. In the sub-acute and chronic stage light massage and graded exercises are added. Hydrotherapy is a very important adjutant. The physical agents used to the greatest advantage in many cases are heat, hydrotherapy, massage, muscular exercises, rest, short wave and light wave.

c. *Analgesic Therapy.* Because of the pain produced by rheumatoid arthritis, it is frequently necessary to give some drug for its relief. Pain interferes with the rest and relaxation of the patient. Sodium salicylates are used a great deal, but, usually more effective results can be reached by the combination of aspirin grains 10, phenacetine grains 3 and caffein grains ½ given q. i. d. or every four hours as needed. If the patient is restless and nervous, phenobarbital may be added or given separately. Occasionally, for short periods, a stronger drug for pain may be needed.

d. *Constitutional Therapy.* The patient should be impressed with the importance of diet, and it is for this reason that it should be a well balanced one containing an adequate number of calories, vitamins and minerals. A good multiple vitamin concentrate given daily is advisable. In cases of anemia, ferrous sulphate or frequently, remissions can be hastened by whole blood transfusions. At least considerable improvement is more often noted than not.

Recent publicity concerning transfusions of blood from pregnant women into arthritic patients is probably unfortunate.[15] *There is no definite basis as yet that this type of blood is more valuable than blood of non-pregnant donors.* It is well known that remissions are characteristic of this disease, regardless of treatment, and again that rheumatoid arthritics occasionally become worse, or have their first attack during pregnancy. More often than not, there is some subjective and frequently objective improvement during pregnancy. On the average, this improvement usually lasts approximately nine months from the onset, which usually occurs about the first to third month of pregnancy.[16] Otherwise, more often than not, exacerbations of the rheumatoid arthritis occur within a matter of a few weeks following delivery. In patients who have achlorhydria gastric distress, relief may be obtained by giving dilute hydrochloric acid in doses of ½ to 1 dram in a glass of water with meals. The maintenance of a normal functioning bowel is important. Frequently, various kinds of tonic therapy is of help. In some cases of anorexia, daily injections of liver and B complex, as well as injections of thiamine, may aid in stimulating the appetite.

e. *Orthopedic Therapy.* The treatment of rheumatoid arthritis is basically a medical problem, but the aid and cooperation of an orthopedist is important in preventing and correcting ankylosis and deformity. Here the aim is to preserve or restore the joint function. Properly applied plaster splints are invaluable in some cases. Forcible joint manipulation should never be used in the acute cases. In some cases of chronic arthritis with certain deformities, orthopedic surgery may mean the difference between a non-functioning or a functioning joint. Most deformities are caused by improper protection of the joint, muscular spasm and atrophy. The patient should be instructed never to use pillows under the knees as this produces a common flexion deformity.

II. SUPPLEMENTARY THERAPY.

a. *Foci of Infection.* The present day rheumatologist is getting away from the idea of indiscriminately removing possible foci of infection;[7, 21] although it is generally believed that any evident foci should be removed. It is advisable to do this after the acute stage of the arthritic process has somewhat subsided.[9] A patient in a weakened condition should be treated for this before an operation is undertaken. It should be made clear to the patient that removal of such foci of infection is not a cure for the arthritis, but serves to lighten the burden on the system so that more resistance can be directed toward the arthritis itself. A very small number of patients with rheumatoid arthritis show improvement which can be attributed to such operations. A conservative attitude, without neglect of possible foci of infection, is advisable. The most important foci of infection are tonsils, teeth, paranasal sinuses, the gingiva, prostate, cervix, appendix, gallbladder, respiratory and gastro-intestinal tract. However, it is questionable as to the significance of some of these foci of infection to rheumatoid arthritis.

b. *Chrysotherapy.* The best results from gold treatments are obtained in the early stages of rheumatoid arthritis. A period of conservative treatment should be tried first. Before beginning gold therapy, the patient should be instructed regarding its dangers and told of its limita-

tions. Some enthusiastic observers have reported 70-80% of their patients receiving improvement.[11, 14] However, other statistics have not been so encouraging. If given conservatively, and the patient checked as well as questioned before each injection, the toxic reaction can be kept at a minimum. Weekly blood counts and urine examination is ideal procedure; however, in private practice this is often difficult.

Contraindications[4] to treatment by chrysotherapy are blood dyscrasia, liver damage, kidney damage, pregnancy, gastro-intestinal diseases (colitis), uncontrollable diabetes, active syphilis, skin eruptions (except psoriasis), cardio-vascular diseases, and severe hypertension. On the other hand, arteriosclerosis, psoriasis, old age and moderate hypertension are not contraindications.[4]

Toxic signs should be looked for carefully and, when found, there should be an immediate withdrawal of gold therapy.[3, 10] It depends on the severity and the nature of the toxicity whether the treatment can be instituted later. The most common untoward reactions are:[10] 1. skin disorders, such as exfoliative dermatitis, erythematous and papular eruptions; 2. gastro-intestinal symptoms as stomatitis, nausea, vomiting, diarrhea and ulcerative colitis; 3. genito-urinary symptoms, as albuminuria, casts and red blood cells; 4. blood symptoms, as anemia, granulocytosis, purpura and eosinophilia. Relatively recently toxic manifestations have been greatly reduced by the administration of British Anti-Lewsite (BAL). Gold salts are administered parenterally and the three types most commonly used are (a) Myochrysine (Sodium Aurothiomalate) given subcutaneously or intramuscularly, and it is 50% gold; (b) Solgonal B Oleosum (Aurothioglucose) given intramuscularly and it is 50% gold; (c) Gold Sodium Thiosulfate (Sanocrysim) given intravenously, and it is 37% gold. Less frequently used are Gold Calcium Thiomalate (Calcium Aurothiomalate), and Gold Thioglycolanilide (Lauron). The safest regime is to begin with 5 mg. of the salt solution and increase it 5 mgs. weekly to an average dose of 25-50 mg. per week, the total dosage being about 1 gm. of gold salt per course. Following a rest period of about two to six months this should be repeated, or a maintenance dose of approximately one-half the weekly dosage given every two to three weeks will avoid relapses, which is common on discontinuance of gold therapy. On the average, three to four courses of gold therapy should be tried. Gold salts are not of any benefit in any other form of arthritis, other than rheumatoid arthritis. The first improvement noted is relief of the joint stiffness, swelling, pain and later motion is considerably increased, but it must be remembered that this treatment does not correct deformity.

c. *Climatotherapy.* There is evidence that climate is an important factor in arthritic conditions, and the patients complain of a definite increase in existing symptoms during stormy, cold and damp weather. Many patients notice considerable relief of the symptoms after a change to a warm, dry climate; however, there are many to whom climate seems to make no great deal of difference. A hot climate with low humidity is definitely desirable.

d. *Roentgenotherapy.* The value of roentgenotherapy as a form of treatment is unsettled, but relief has been reported in some cases and this is encouraging. Frequently some cases of dorsal spondylitis are relieved by this treatment where other treatments have failed.[8, 13]

e. *Nicotinic Acid Therapy.* The principal use of this treatment is that it causes dilatation of the blood vessels and it increases circulation to the affected joints. The technic has been described by Kurtz and others.[19] According to the investigators favoring nicotinic acid therapy, subjective and objective improvement was obtained in 25 and 26 cases respectively of a group of 35 patients.

f. *Fever Therapy.*[20] This type of treatment should not be used in elderly or weak patients. Lasting improvement is noted in about 10-20% of patients so treated,[8] but the relief obtained is usually temporary.

g. *Foreign Protein Therapy.* To provide fever and shock, typhoid vaccine often alleviates symptoms when given intravenously. A chill and fever occur within 45 minutes after the vaccine is given. It is so given to produce a fever reaction of 102-104 F. and relief is frequently experienced within 24 hours. A small amount of the patient's own blood may be removed from a vein and reinjected into a muscle to give the same type of reaction. Whole milk has been used for the same purpose, also.

h. *Endocrine Therapy.* Testostrone propinate aids in decreasing tiredness and lassitude of some male patients. Estrogenic substances do not seem to have any particular effect on rheu-

matoid arthritis in the female. Curiously enough, it is noted that considerable relief from arthritic symptoms often occurs during pregnancy, but frequently exacerbations are noted soon after delivery, and occasionally an arthritic becomes worse during pregnancy. Again, the occurrence of jaundice in many arthritis patients seems to bring considerable relief. The explanation of these facts is not yet understood.

III. DOUBTFUL THERAPY.

a. *Vitamin D Therapy.* It is generally agreed that a high multiple vitamin intake is important, but this is not true of massive doses of Vitamin D. A few investigators have reported that massive doses of Vitamin D are of great value in the treatment of rheumatoid arthritis.[24, 25, 11] However, other investigators have not been able to confirm this.[8, 15, 17] In large doses, Vitamin D frequently acts as a strong tonic and temporary relief may be experienced, however, the rate of relapse is high when treatment is discontinued. The toxic reactions from such therapy are frequent and occasionally dangerous; the most commonly noted are anorexia, polyuria, lassitude, dizziness, nausea, vomiting, diarrhea, weakness, headaches, and depression. Extensive metastatic calcifications of the blood vessels and other tissues have been reported. These reactions are said to be less common with parenteral injections of Vitamin D.

b. *Vaccine Therapy.* This form of therapy is used purely on an empirical basis and few encouraging results have been obtained. Stock and autogenous vaccines have been advocated.

c. *Iodides, Arsenicals and Antibiotics.* These are mentioned simply to state that their use has not been found worthwhile in the treatment of rheumatoid arthritis, per se.

d. *Dietary Fads.* Probably no other treatment has been so extensively exploited as fads in diet. It may be generally stated that a well-balanced diet of calories, vitamins and minerals is imperative, but no one particular food or group of foods have been credited with any outstanding results.

e. *Venom Therapy.* Here the most important of any venom employed is probably the onefrom the honey bee. This received its standing from the absence of arthritis in the general run of bee tenders who received innumerable bee stings. The technic and dosage has been described by various authors,[1] but the actual results in general practice are not too remarkable.

f. *Prostigmine Therapy.* Treatment with prostigmine has been advocated for the relief of muscle spasm produced in rheumatoid arthritis. Some observers have reported considerable relief of pain and increase of joint motion, but at the present time, the trend is that prostigmine is contraindicated in rheumatoid arthritis.

PROGNOSIS

For all practical purposes, it is almost impossible to predict the course of any one patient with rheumatoid arthritis. However, it is not as hopeless as is generally thought by the average practitioner. About 10-25% of the cases of rheumatoid arthritis will have a progressive downhill course, in spite of all therapy or lack of therapy. With a small amount of optimism, it may be stated that 50% will show moderate to marked improvement, while 20-30% will show improvement with some kind of therapy. This gives an approximate total of 70-80% of cases which will show improvement. On the other hand, remissions can frequently be hastened by medical treatments.

The word "cure" should not be applied to rheumatoid arthritis, but rather the word "arrested" or the words a "remission has occurred." There may be permanent remissions or temporary remissions. Exacerbations or relapses are frequently high in number, or they may be of short or long duration, as well as few in number.

The most favorable outlook is found in those patients with an acute onset. The prognosis may be considered unfavorable when the onset is insidious and new joints are involved from time to time with the production of marked muscular atrophy and weight loss. In these cases, subcutaneous nodules are frequently present, and the sedementation rate remains high, and the tachycardia persists.

It must be remembered that some patients with rheumatoid arthritis will be crippled and will be invalids with marked cachexia in spite of all known forms of therapy. Rheumatoid arthritis is not a fatal disease in itself, however it is a debilitating disease. Most of the cases die from intercurrent infection due to a weakened system. Pneumonia, probably, or some visceral

dysfunction is the most common terminator. The deformity produced by this disease can be improved frequently by orthopedic care or by surgery. However, prevention of deformity is much more satisfactory than correction of deformity.

SUMMARY

1. Arthritis is probably the oldest disease of which we have conclusive evidence of its existence. This evidence dates back to some six hundred million years.

2. The etiology of rheumatoid arthritis is unknown, however, a few etiological factors have been considered; among them are (a) the constitutional predisposition towards rheumatoid arthritis, (b) the precipitating factors, (c) dietary deficiencies as a factor, (d) endocrine factors, and (e) psychiatric factors.

3. The diagnosis of rheumatoid arthritis in patients with the characteristic deformities is not a problem, but many cases must be followed for weeks and months by clinical and laboratory observation before a diagnosis can be derived.

4. Treatment of rheumatoid arthritis may be divided into three catagories: (a) general therapy, (b) supplementary therapy, (c) doubtful therapy.

5. Gold salts are still considered the drug of choice by many and its use should be continued until a superior substitute is found. Patients for this treatment are carefully selected and closely observed during the course. The large doses formerly used have been found unnecessary and are more toxic than the smaller doses, which give results comparable to the larger ones.

6. Other forms of treatment have been discussed.

7. Prognosis of rheumatoid arthritis is not hopeless. Approximately 70-80% can expect improvement from medical care. However, 10-20% do not improve. Rheumatoid arthritis is not a fatal disease, but it is a debilitating disease.

8. The word "cure" is not applicable to rheumatoid arthritis.

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MASSIVE HEMORRHAGE FROM A MECKEL'S DIVERTICULUM OCCURRING IN AN INFANT OF THREE MONTHS

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THE Meckel's diverticulum has been encountered frequently in abdominal surgery. The condition is said to be present in about 2 per cent of individuals coming to autopsy. Disease of the diverticulum may occur at any age but most commonly in early life.

Embryologically the diverticulum represents a failure of the usual involution of the omphalomesenteric duct. In the first four weeks of fetal life the communication between the embryo and the yolk sac is very wide. By the fourth week the communication contracts down to a narrow structure known as the omphalomesenteric or vitelline duct. It attaches to the midgut and is accompanied by a continuation of the superior mesenteric artery. The yolk sac atrophies and by the tenth week after the bowel has herniated out into the umbilicus and has returned to the abdomen, the umbilicus begins to close. From this time on the duct becomes a fibrous cord between the umbilicus and the bowel, it finally breaks and atrophies. The characteristics of the presenting Meckel's diverticulum will depend at the stage at which the normal involutional process has been arrested. The clinical findings may correspond to the anatomical or histological variation that exists. The lining of the diverticulum may be ileal, gastric, duodenal, colonic, pancreatic or combinations of these.

The pathologic complications arising from a Meckel's diverticulum as given by Ladd and Gross in a review of 73 cases were:

1. Hemorrhage in 26
2. The leading point of intussusception in 17
3. Abdominal pain in 12
4. Inflammation with or without perforation in 10
5. Obstruction from a persistent band to the umbilicus 6
6. Umbilical fistula in 1
7. Volvulus and infarction of diverticulum in 1

This case is presented as an example of the type showing massive hemorrhage from an ulcer in the diverticulum.

CASE REPORT

Baby, R. T., admitted to Saint Mary's Hospital December 2, 1947. The baby was delivered by Cesarean section August 30, 1947, with a weight of 7 pounds. The nursery period was normal except for a rather severe physiological jaundice. He was breast fed and had been well until the night of December 1, 1947, when he cried out unusually and the mother observed that the stools were black. He continued to nurse, did not vomit, but a second stool occurred that was black and contained dark blood.

Examination revealed a well developed baby weighing 12 pounds. He was very pale but did not seem in acute pain. The anterior fontanel was open two fingers and was not bulging. The ears, nose, throat and mouth were normal except for the pallor of the mucous membranes. The chest and heart were normal. The abdmen was distended, there was no apparent tenderness and the liver was palpable two fingers below the right costal margin. The abdominal wall was soft but a soft mass could be made out in the left umbilical quadrant. Rectal examination revealed a soft doughy mass by pressure being made from above. The withdrawn examining finger released considerable dark blood.

The urine was normal. The blood examination gave Hemoglobin 8.1 grams per cent. The red blood cells were 2,970,000 per cubic mm. The white blood cells, 16,550 per cubic mm., with neutrophiles 23%, easinophils 3%, lymphocytes 72% and monocytes 2%. Blood platelets were 386,000 per cubic mm. The bleeding time was 4 minutes and coagulation time was 3 minutes. X-ray of the abdomen in the supine and erect positions revealed considerable distension of the small bowel but no other significant findings.

In view of these findings operation was deemed urgent. The pre-operative diagnosis was bleeding ulcer, however the mass in the left quadrant raised the possibility of an intussusception. The baby was given 100 C. C. citrated blood and the abdomen opened by right rectus incision. The colon and small bowel were found distended and containing considerable dark blood. The blood-filled bowel was traced up the ileum to a Meckel's diverticulum. The diverticulum was removed. The appendix was removed though it revealed no pathology.

The diverticulum was 2 inches long and ½ inch in diameter at its attachment. There was a trailing fibrous band from its tip that was unattached to the umbilicus. A small rounded punched out ulcer was found near the tip of the diverticulum. Sections disclosed a small necrotic ulcer with rather heavy leucocytic infiltration in the layers surrounding the ulcer. There was no typical gastric mucosa found.

The baby was given 100 C. C. citrated blood post-operatively. He was allowed to nurse the breast in eight hours and the further course was uneventful.

SUMMARY

A case report is made of a bleeding ulcer of a Meckel's diverticulum occurring in an infant of three months. Surgical removal was accomplished with pre- and post-operative transfusions and complete recovery.

Attention is again directed to the urgent surgical need for correction of the condition and emergency diagnostic problem arising when blood is found in the stools of an infant.

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REACTION FOLLOWING THE USE OF TR. MERTHIOLATE

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GENERAL practitioners and surgeons use antiseptics more frequently and in larger amounts than any other practitioners of medicine. It thus seems unusual that so few reports to the various antiseptics have appeared in the general medical or surgical literature. Most of the articles on this subject have appeared in the dermatology journals which are not read regularly by the doctors who would be most likely to see the major proportion of these reactions.

We have had recently the occasion to observe a patient with a severe reaction to tincture of merthiolate. Since the symptoms were confusing and the diagnosis uncertain in the early stages of the reaction, it was thought that a review of the case was worth reporting.

CASE REPORT

The patient, a white female, age 45, entered the hospital on 10-15-47 for ligations of the saphenous vein of the left leg. In August, 1947 she had been treated for an ulcer above the medial malleolus of the left leg. This had been interpreted as a varicose ulcer, finally healing with pressure dressings and bland ointments. Physical examination was essentially normal except for varicosities of both lower extremities with incompetence of the saphenous and communicating valves in the left leg. The blood count, urine analysis, Wassermann and Kahn were normal. On 10-16-47 the left leg was prepared for surgery with ether and tincture of merthiolate. Multiple resections and ligations of the left saphenous vein were done under local anesthesia of novacain 1%. Three hours post-operatively the patient had a severe chill with a temperature elevation of 101 F. She had chills intermittently through the night, and by the next morning her temperature had increased to 102 F. Examination of the wounds at this time revealed no evidence of infection, but small vesicles and erythema were noted in the area where merthiolate had been applied. Penicillin, 30,000 u. every three hours, was begun. The following day (10-18-47) the temperature had declined to 100.4 F., and no chills were noted. It was discovered at this time that the ulcer which had made its appearance the previous August had followed the repeated application of tincture of merthiolate. The patient stated that she had applied the antiseptic daily for itching of the skin and had continued its application until the skin became too raw and painful to continue its use. A progress note dated 10-21-47 states, "Reaction subsiding, but vesicles have become pustular in many areas." On 18-24-47 the sutures were removed. By this time the pustules had become crusted and dry, the patient complaining of severe pruritis in the area of the reaction. She left the hospital on 10-28-47 and was seen in the office on 12-2-47. At this time pruritis and crusting of the skin of the leg persisted, but the erythema had almost subsided. Patch tests were applied, using tr. merthiolate, tr. mercresin, tr. metaphan, mercurochrone 2%, and ammoniated mercury ointment 5%. There was no reaction to any of the drugs applied except the merthiolate, which showed erythema and vesiculation, reaching its maximum reaction in 48 hours. Redness and pruritis in the area of the patch test remained for two weeks following its application. The patient was warned never again to use merthiolate solutions.

COMMENT

Many severe reactions have been reported following the use of mercurial ointments[1, 2, 3] and a lesser number due to antiseptics containing mercurials.[4, 9, 5] It is known that individuals may be sensitive to one mercurial compound and insensitive to others. Ellis and Robinson[6] investigated five patients with dermatitis due to merthiolate and found that four were sensitive to merthiolate and not to other organic or inorganic mercury compounds with which they were tested. Lipson[7] reviewed a case of sensitivity to Merthi-

olate and could not demonstrate a sensitivity to other mercurials tested. Such a variance in sensitivity has been explained as being due to patients' having a sensitivity to complex organic compounds without reacting to the simple inorganic or to other complex organic mercurials."[6] This seems like a less acceptable explanation than assuming that the sensitivity in such cases was not due to a mercury compound (which was present in each substance tested) but was due to some substance contained in merthiolate not present in the other substances tested. Tr. of merthiolate is a 1:1000 alcohol acetone aqueous solution of sodium ethyl merculi thiosalicylate. The thio compound contained in its structure is a substance not contained in the other mercurials tested. In a pamphlet printed by the manufacturers of merthiolate, the reaction due to hypersensitivity to the thio compounds is described.[8] This reaction is similar to those in most reported reactions. It seems more logical, therefore, to ascribe most of the reactions of merthiolate to the thiosalicylate rather than the mercuric compound it contains. From the reports in the literature it would seem that merthiolate sensitivity is rare but is more common than reported. Mitchell[9] has stated that he had observed a number of cases of severe dermatitis following the treatment of dermophytosis with preparations of merthiolate. When a reaction does result, it is important that it be recognized and the application of the drug ceased. Many of the reported cases are similar in that in spite of a reaction to merthiolate, its use was being continued as a means of therapy to alleviate the result of its application. Hollander[10] reported a nurse who had a severe dermatitis venenata for over two years due to continuous self medication with tincture of merthiolate. Improvement was noted on discontinuing its use.

The usual reaction resulting from such a sensitivity is an erythemato-vesiculoustular dermatitis. Regional lymph glands may be tender or enlarged. The vesicles vary in size and often become covered with sero pustular crusts. Fissuring and thickening of the skin have occurred after long continued use of the drug.

No reactions have been found in the literature where a generalized reaction with chills and fever have resulted following the application of a merthiolate to a sensitive patient, such as occurred in the above case.

It is not the purpose of this paper to condemn the use of merthiolate. It is hoped rather to further acquaint physicians with the potential reactions that can occur after its use in sensitive individuals and to recognize its appearance when such a condition becomes manifest. Obtaining a history from a patient that a "rash" or "pimples" have resulted on previous occasions following the application of a "red" antiseptic should make one cautious and reluctant to apply merthiolate substances. Ellis[11] has cautioned against the use of merthiolate in eye ointments unless a patch test is negative because of the potential damage to the mucous membranes. Merthiolate solutions are so commonly used that the ratio of reactions must be very small and the physician's mistake is not in producing a reaction but in continuing the illness by further applications of the antiseptic.

It would be of interest and value to know if those individuals who show a skin sensitivity to merthiolate also have a systemic sensitivity. Merthiolate is such a commonly used preservative for biologicals, plasma, cartilage, etc., that it would seem important to determine whether harm would result following its subcutaneous or intravenous injection in skin sensitive individuals.

SUMMARY

A case has been presented which manifested a local and general reaction following the application of merthiolate. Recovery was complete and the treatment was entirely symptomatic with the exception of the use of Penicillin, which was possibly of value due to the pustular character of the skin lesions. Such reactions should be recognized to prevent further applications of the drug which would exacerbate or accentuate the illness.

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UROLOGIC MANIFESTATIONS OF ENDOMETRIOSIS
With Report of Two Cases*

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ENDOMETRIOSIS is the name given to endometrium existing in abnormal locations. Endometrioma is a tumor consisting of endometrial tissue.

This subject was first described in 1896 by von Recklinghausen and Cullen. Endometriosis of the bladder was described twenty-five years later in 1921 by Judd. Since then there have been isolated reports of endometriosis of the bladder, ureter and kidney. Moore et al summarized the forty-six cases of vesical endometriosis reported up to 1943. Kretschmer reported sixty-four cases of vesical endometriosis in 1945. Review of the literature now reveals a total of seventy-two reported cases. The recent greater number of reports on endometriosis of the urinary tract implies that this condition is now sought and recognized more often.

Moore's fine review includes a discussion of the theories of the etiology and predisposing causes. He states that forty-two of the forty-six cases he reported had either previous pelvic surgery or had concurrent pelvic disease.

Endometriosis in urology will be reviewed by systems:

BLADDER: Endometriosis of the bladder is difficult to diagnose because the symptoms are not specific except that they tend to be cyclic, synchronous with the menstrual cycle. Spontaneous relief during pregnancy or at menopause is highly suggestive. Cystoscopically an endometrioma is generally camouflaged by edema and inflammatory polyps although the characteristic smooth bluish cystic appearance is occasionally seen. The appearance varies directly with the titre of estrogen during the menstrual cycle. Ockuly has described the changing morphology of an endometrioma following x-ray castration. Positive diagnosis depends upon biopsy including endometrial tissue.

URETER: Endometriosis of the ureter may occlude the ureter extrinsically by compression or intrinsically by invasion of the ureteral wall. Reports of nine cases have been found in the literature, four by Goodall, and one each by Randall, O'Conon, Levinthal, Hirst, and Muller. The two cases herein reported are now added to cases of ureteral occlusion by endometriosis.

URETHRA: Goodall describes three cases of endometriosis of the urethra.

KIDNEY: Endometrial tissue in the kidney must be considered as congenitally aberrant tissue and not true endometriosis. A case of this type was described by Marshall.

Surgery: The difficult dissections encountered during excision of pelvic endometriosis have occasioned injury to the urinary tract. Repair of these injuries is a difficult urological problem. Our second case is one of this category.

Treatment of endometriosis of the urinary

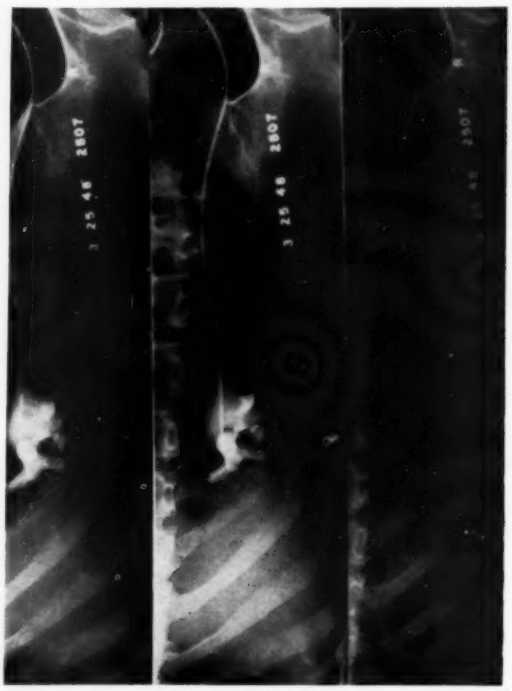

Fig. 1. Retrograde pyeloureterograms taken February 25, 1948, showing occlusion of lower right ureter by endometrioma and resulting hydroureteronephrosis.

1 Read at St. Mary's Staff Clinic on August 17, 1948 by Doctor Graf.

tract as well as the treatment of endometriosis in general depends upon the age of the patient since the menopause usually causes resolution of the disease. Conversely in a younger individual preserving functional ovarian tissue is highly desirable, and conservative excision of the endometrioma is most desirable. Castration by surgery or x-ray is the treatment of choice in an older individual approaching the menopause. Although the disease generally resolves when estrogenic stimulation is denied, exceptions have occurred according to O'Conor. "Occasionally, removal of the ovaries does not arrest the disease. Such occasional cases have been reported which suggest that the tendency to infiltrate had gone beyond, and became independent of the primary agency that initiated their abnormal reproduction."

"In some instances the urinary tract lesion has persisted, and even progressed, after all demonstrable evidence of remaining ovarian tissue has been lacking."

This seeming incongruity has been explained by Goodall. He states that in one type of endometriosis histopathological study reveals only stroma. This type is not appreciably responsive to the withdrawal of estrogen and its growth characteristics resemble sarcoma. He calls it

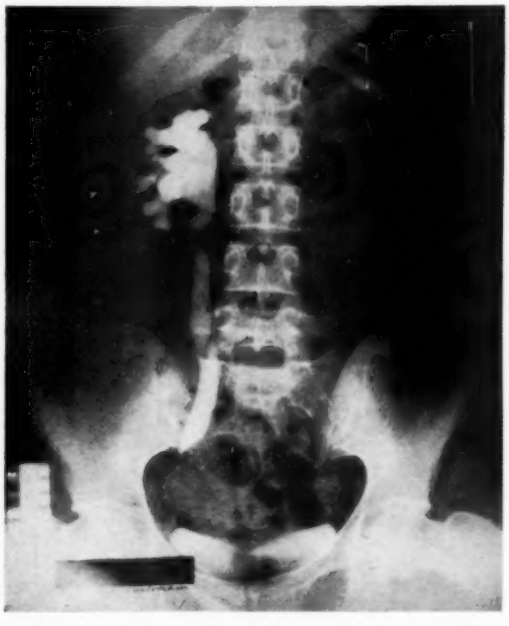

Fig. 2. Retrograde pyeloureterograms taken March 25, 1948, demonstrating return to normal morphology.

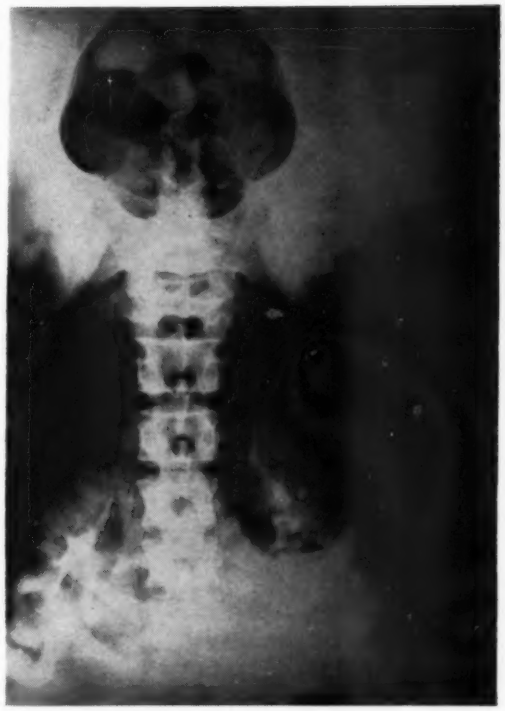

Fig. 3. Intravenous pyelograms 3½ months after acute episode of right renal pain. There is no evidence of ureteral obstruction.

stromatous endometriosis. Endometriomatous tissue containing glands and stroma, which is the common type, resolves on denying estrogen.

Faulkner has observed that "In certain instances growth characteristics of the lesion apparently become irreversible before operation is performed."

Hirst described his experiences with testosterone in advanced cases of endometriosis. He gave 150 to 225 mgm. of testosterone propionate in oil intramuscularly over a period of two to three weeks, followed by 10 mgm. daily of methyl-testosterone orally for variable periods up to four years. He concludes from his cases that testosterone is useful in endometriosis. Side affects that he mentions are: Hirsutism, virilism, acne, urticaria, slight voice changes, increased libido, vulvar hypertrophy. Two women became pregnant while under testosterone therapy.

Estrogenic substances should not be used to relieve the symptoms of artificial menopause in the presence of endometriosis. However, Muller was able to give small doses of estrogen which largely relieved both menopausal and bladder

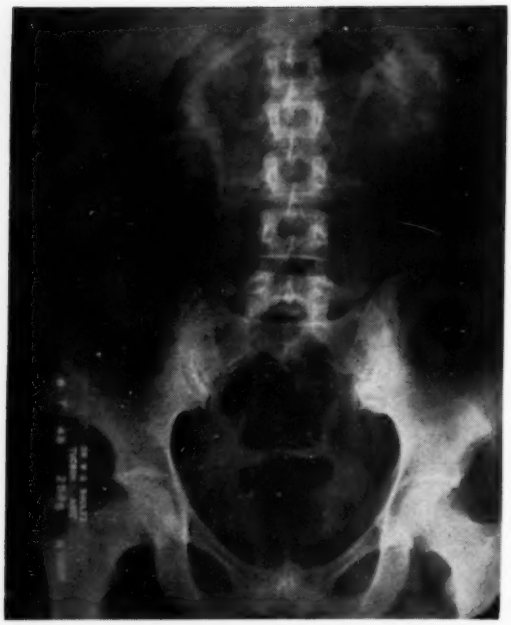

Fig. 4. Intravenous pyelograms 2½ months after repair of ureter. Non-constriction noted in right ureter.

symptoms while larger doses caused reactivation of the vesical endometrioma. In the first case to be described estrogen seemed to precipitate the urological disease secondary to the stimulated juxta ureteral endometrioma.

CASE REPORT

The twenty-six year old patient was seen for the first time February, 1948 with severe right renal colic of six hours duration. The urine was normal in all respects and a urine culture was reported subsequently as negative. K. U. B. demonstrated no calculus. An intravenous pyelogram two days later marked right hydrouretor associated with hydronephrosis and a normal left renal pelvis and ureter. A retrograde pyelogram on three days after onset of symptoms showed marked constriction of the lower right ureter. (See Figure 1)

The past history was pertinent and established the diagnosis. An appendectomy had been performed in 1940. A curettement was done in 1941. In 1946 a bilateral salpingectomy and bilateral partial oophorectomy was performed because of chronic interstitial salpingitis and hemorrhagic corpus luteum cysts of the ovaries. In November of 1947 a supra-cervical hysterectomy and bilateral oophorectomy was performed because of extensive endometriosis. During the ensuing thrfee post operative months before the present admission she had enjoyed good health, but premarin had been given to alleviate symptoms of artificial menopause. The diagnosis was ureteral occlusion secondary to extrinsic ureteral pressure by pelvic endometriosis. The right ureter was dilated with one indwelling F-5 ureteral catheter a week after onset of symptoms and by two F-5 ureteral catheters three days subsequently. Catheters were removed seventy-two hours later and androgenic therapy was started. The dosage of androgen to effect the involution of the endometriosis was 25 mgm. Neo-Hombreol twice weekly. Retrograde pyelograms late in March, '48 showed return to normal morphology. (See Figure 2) Intravenous pyelograms of May '48 were normal. (See Figure 3)

At the present time contact with the patient has been lost.

CASE REPORT

The second case to illustrate the relation of endometriosis to urology is one of surgical injury to the ureter during difficult dissection of endometrial tissue in the pelvis.

On March 19th, 1948 a hysterectomy and bilateral salpingo-oophorectomy was performed. The surgeon also attempted to remove remnants of endometriosis which extended deep into the right broad ligament enveloping the ureter. In removing the tumor the ureter was divided. The right ureter was repaired by end to end anastomosis over an indwelling ureteral catheter which was then left in situ for five days. Because the

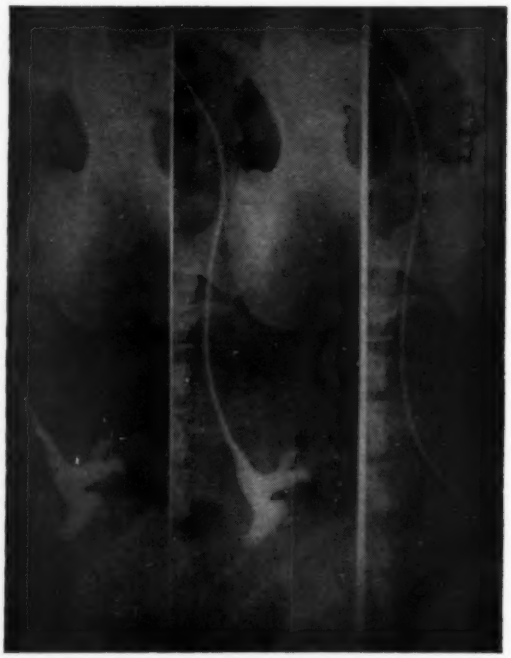

Fig. 5. Retrograde pyeloureterograms taken five months post operatively demonstrate normal morphology. Site of anastomosis is of good caliber and well delineated.

urinary fistula persisted, the ureteral catheter was re-inserted. There was no obstruction on passing the catheter. The wound became dry and remained dry after removing the catheter four days later.

Intravenous pyelograms two and one-half months after surgical repair demonstrate a relatively normal functioning right kidney without remarkable constriction or dilatation proximal to anastomosis. (See Figure 4) Retrograde pyelograms taken five months after ureteral repair were also normal. (See Figure 5)

SUMMARY

Endometriosis has become a prominent disease in gynecology. Urinary problems caused by endometriosis have increased in numbers. This fact is borne out by the recent increase in reports in the literature. Seventy-two cases have now been reported.

Any recurring urologic complaint associated with and shortly following the menstrual cycle should suggest endometriosis involving the urinary system.

Hormone therapy has proved useful in the treatment of some urologic manifestations of endometriosis.

EDITORIAL NOTE: Under review of systems heading "ureter," what proof is there that Case Two had any ureteral occlusion by endometriosis?

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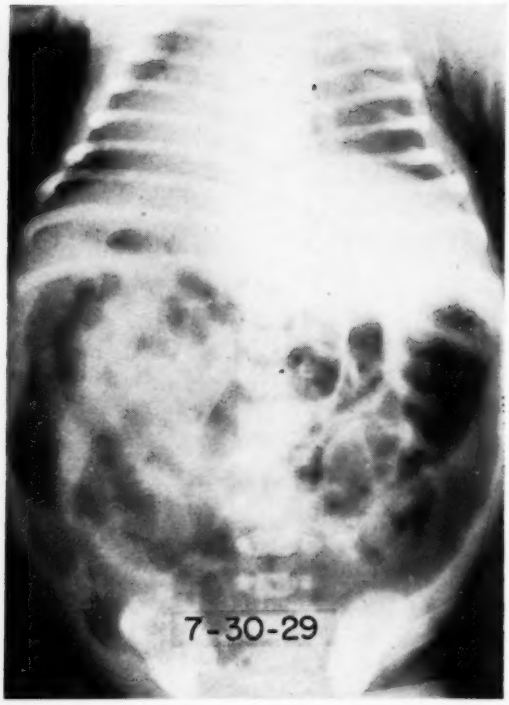
FIBROCYSTIC DISEASE OF THE PANCREAS

HAROLD W. KOHL, M. D.
Tucson, Arizona

FIBROCYSTIC disease of the pancreas has probably been confused with idiopathic coeliac disease for many years. It was not until 1935 that the former was described as an entity, separate and apart from coeliac disease, and yet falling within the broad definition of coeliac syndrome. It was Parmelee[1], who, in reporting two cases of pancreatic disease, suggested that there was a difference between what he chose to call "congenital steatorrhea," and the usual coeliac disease; and that the distinguishing features of fibrocystic pancreatic disease were (1) early onset, (2) excessive neutral fats in the stools, and (3) uniformly fatal outcome. The fatal outcome always is associated with pulmonary disease which can be variously described as bronchiectasis, bronchiolectasis, multiple subacute pulmonary abscesses of varying size and subacute purulent bronchitis.

There has been a relative lack of reports correlating clinical and postmortem findings. In 1938, Anderson[2] reported 49 cases of pancreatic fibrosis, which included 20 from the necropsy files of Babies Hospital, New York City. In the same year Blackfan and May[3] reported 35 cases gleaned from a survey of 2800 necropsy reports in Children's Hospital. In 1943, S. Farber[4] published an excellent article in the New England Journal of Medicine on Fibrocystic Disease of the Pancreas. He set up a classification of this disease dividing the cases into three groups. Group I—Those dying in the first few weeks of life; Group II—those dying usually in the first year of life with a clinical history of nutritional disturbance often obscured by respiratory disease; Group III—those dying of respiratory disease with symptoms suggesting the coeliac syndrome. Into this third group fell about 50% of Anderson's cases. Bergenstoss and Kennedy[5] reported 14 cases to have been seen in 18 years of necropsies at the Mayo Clinic. It is interesting that all of the cases falling into the third classification die of pulmonary infection, and that all cases so far reported dying of respiratory infection have ranged in age from 6 months to 14½ years.

It will be noted that practically all bibliographical references are to articles by Pediatri-



—Dr. Edward M. Hayden, Roentgenologist, Tucson.
Fig. 1

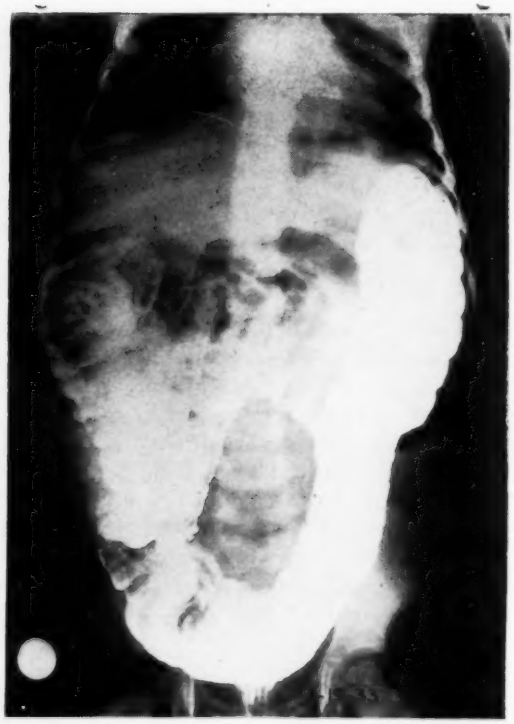
cians, and rightfully so. This entity is an affliction of infancy and childhood by and large, but we feel justified in discussing the problem both because of the pulmonary aspects and because this short paper will report a case dying at the most advanced age yet reported, 17 years, while the oldest previously reported case was by Anderson, and her case died at the age 14½ years. A summary of the literature gives us the following large view of the disease called Fibrocystic Disease of the Pancreas as it is known up to the moment.

THE ETIOLOGY has been variously ascribed to vitamin A deficiency; the action of a filterable virus; a fundamental alteration in the character of acinar secretions; a familial tendency.

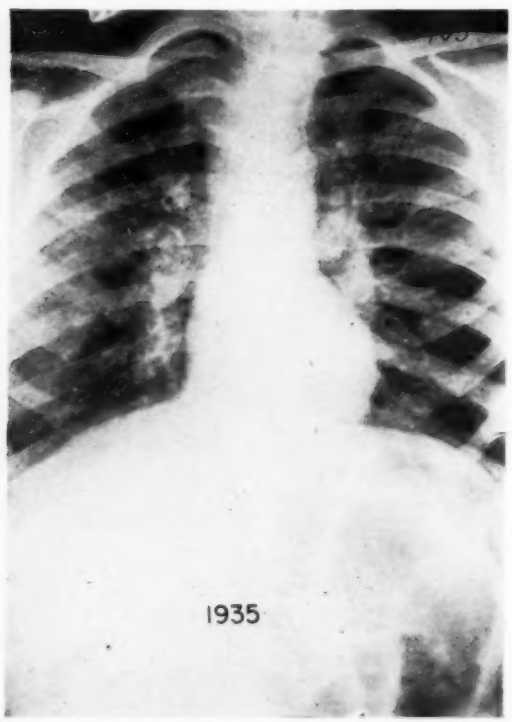
Fig. 1. Film in early infancy is not diagnostic but suggests some congestive change in the inner zone around each hilum and distension of the small and large bowel.—Dr. Edward M. Hayden, Roentgenologist, Tucson.

Fig. 2. 1-19-33. Barium enema study demonstrates a somewhat distended colon and there is a small amount of nodular infiltration and some fibrosis in the inner zone around each hilum.

Fig. 3. A 1935 film shows a diffuse nodular infiltration distributed along semi-fibrotic bronchovascular structures in each lung, much more extensive on the right, and bilateral heavy hilar structures.



—Dr. Edward M. Hayden, Roentgenologist, Tucson.
Fig. 2



—Dr. Edward M. Hayden, Roentgenologist, Tucson.
Fig. 3

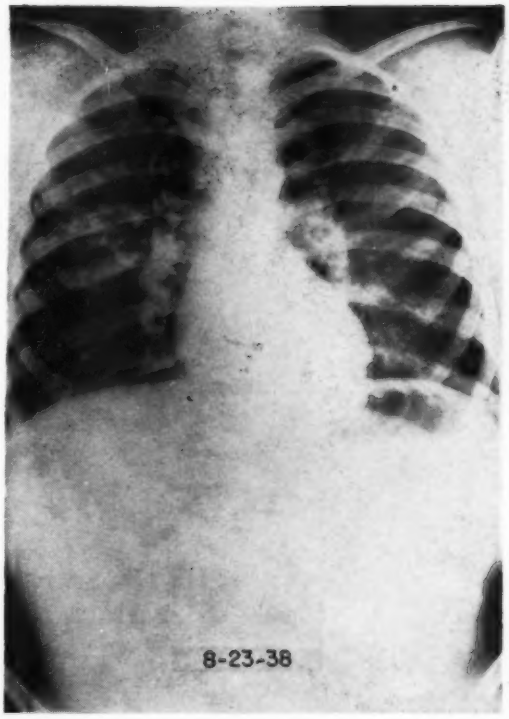
THE SYMPTOM COMPLEX: Retarded growth, abdominal distention, bulky foul stools with an excess of fat, cough in the cases living to fall into Farber's Group III, wasting of the limbs.

According to Kiskaddon[6] the most important diagnostic procedure is the examination of the duodenal contents and the findings of pancreatic achylia. GI x-rays show clumping of barium in the small intestine. The Glucose Tolerance Curve is flat. X-rays of the chest show fibrotic changes suggestive of fungus disease of the lungs, and also of widely disseminated bronchiectasis. Stool examinations show an enormous amount of neutral fats.

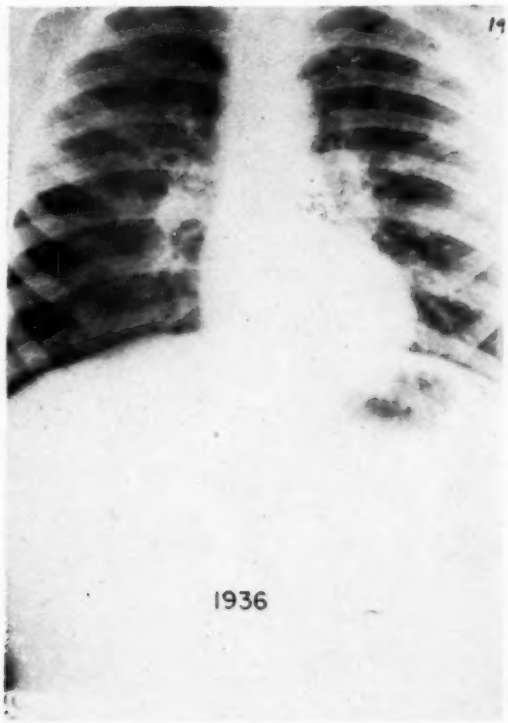
Fig. 4. A 1936 film shows a slight further improvement in each lung with persistence of nodulations along the bronchovascular structures in both lungs.

Fig. 5. 8-23-38. A heavy soft broncho-pneumotic infiltration has developed in the upper half of the right lung and the process in the left lung has become a little more extensive.

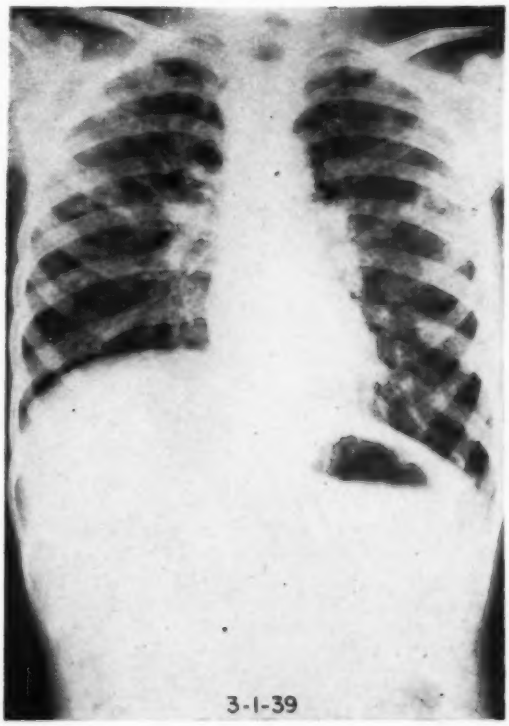
Fig. 6. 3-1-39. The upper half of the right lung has improved a little, but a more diffuse fibrosis and chronic broncho-pneumonia is present bilaterally. The right leaf of the diaphragm has been paralyzed.



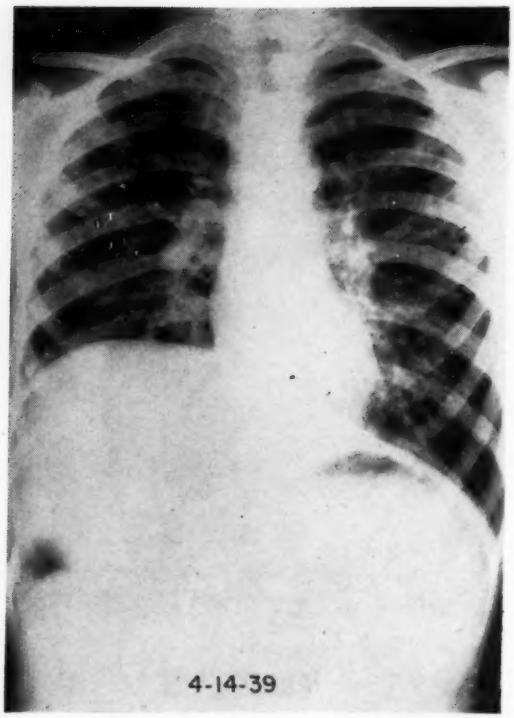
—Dr. Edward M. Hayden, Roentgenologist, Tucson.
Fig. 5



—Dr. Edward M. Hayden, Roentgenologist, Tucson.
Fig. 4



—Dr. Edward M. Hayden, Roentgenologist, Tucson.
Fig. 6



—Dr. Edward M. Hayden, Roentgenologist, Tucson.
Fig. 7

CASE REPORT

J. M., age 17, Female, White.

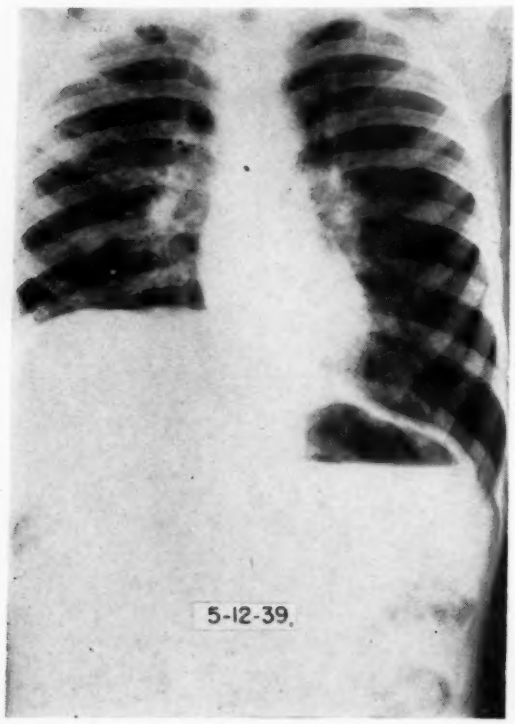
This young lady's medical history dates back to May, 1929, shortly after birth. At that time x-ray studies of the intestinal tract were done which showed a tremendously enlarged colon, (Fig. 1) and the diagnosis of megacolon, "Hirschsprung's Disease" was made. In 1933 and 1934, when the child was 4 and 5 years of age respectively, further (Fig. 2) gastrointestinal barium studies were made.

When the child was 2 years of age cough became a prominent symptom and persisted for 15 years until death. Presumably x-ray studies of the chest were made in 1931 at the onset of the pulmonary symptoms, but the films cannot be located. However, the GI studies done in 1933, when the child was 4 years of age, indicate pulmonary changes. From 1935 to 1940 (Figs.

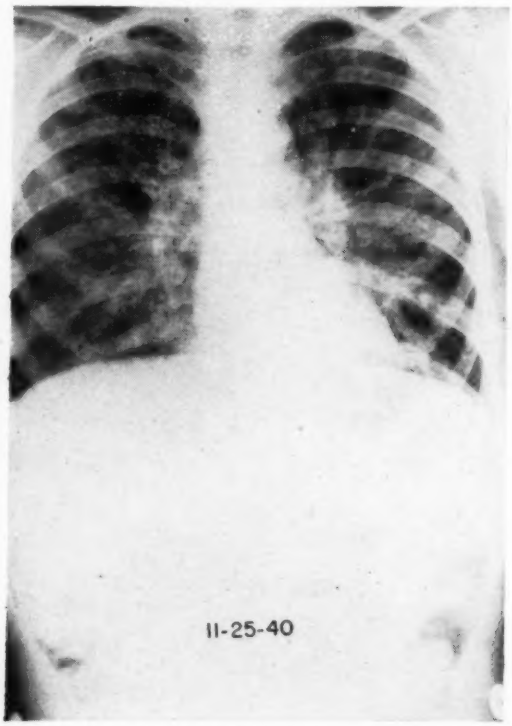
Fig. 7. 4-14-39. The right lung has shown appreciable improvement, and the left lung is much improved.

Fig. 8. 5-12-39. Both lungs are further improved, the left being almost restored to normalcy, whereas on the right there is a rather diffuse fine fibrosis with minimal infiltration along the bronchovascular structures.

Fig. 9. 11-25-40. The diffuse chronic bronchopneumonia on both sides has recurred, being more marked on the right, and the right leaf of the diaphragm is no longer paralyzed.



—Dr. Edward M. Hayden, Roentgenologist, Tucson.
Fig. 8

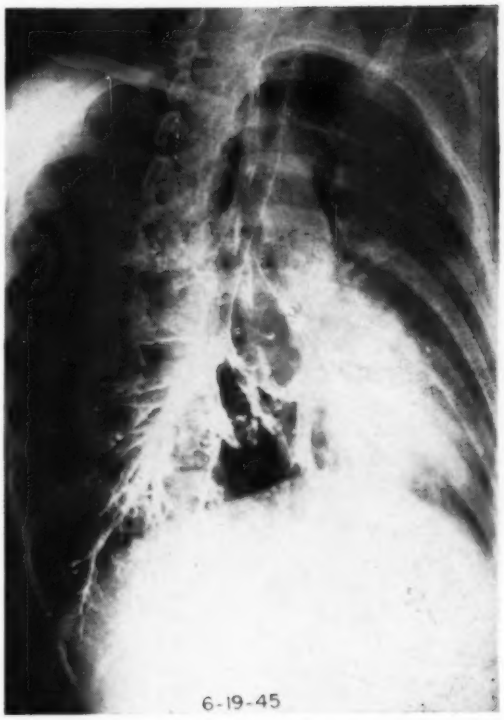


—Dr. Edward M. Hayden, Roentgenologist, Tucson.
Fig. 9

3-9) there is an unbroken series of chest films showing the progression of the pulmonary disease.

Then the continuity of x-ray studies is again broken for three years, however the films of 1944 and 1945 (Figs. 10-12) show the pulmonary roentgen findings when the patient was 15 and 16 years of age respectively.

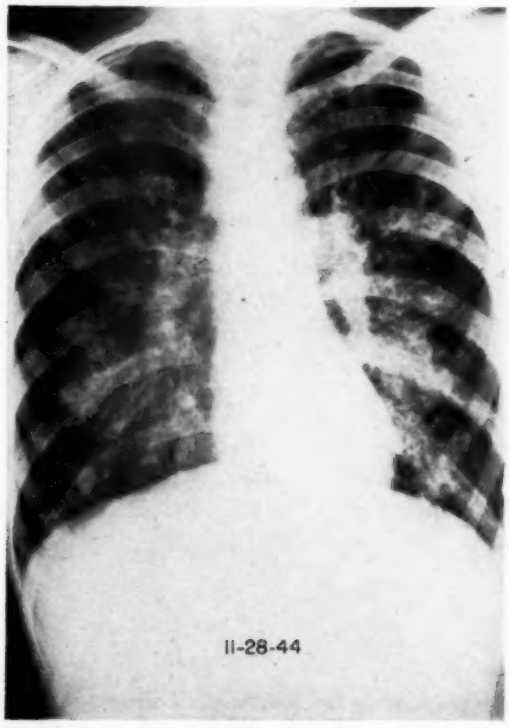
This patient was brought into the office by her parents in March, 1946, just prior to her 17th birthday. The chief complaints at that time were cough, abundant tenacious sputum, inability to gain weight, and lack of energy and endurance. About three years prior to admission the diagnosis of fungus disease of the lungs (Monilia Albicans) had been made and the patient was receiving enormous doses of iodides. It might be pointed out here that oral medication was extremely well tolerated by the patient, and it was established that very little absorption from the intestinal tract occurred. For example 4 cc or 1 teaspoonful of saturated solution of potassium iodide four times daily (i. e.) ½ oz., had no beneficial effect on the bronchial secretions, nor did it produce any skin rash, or other



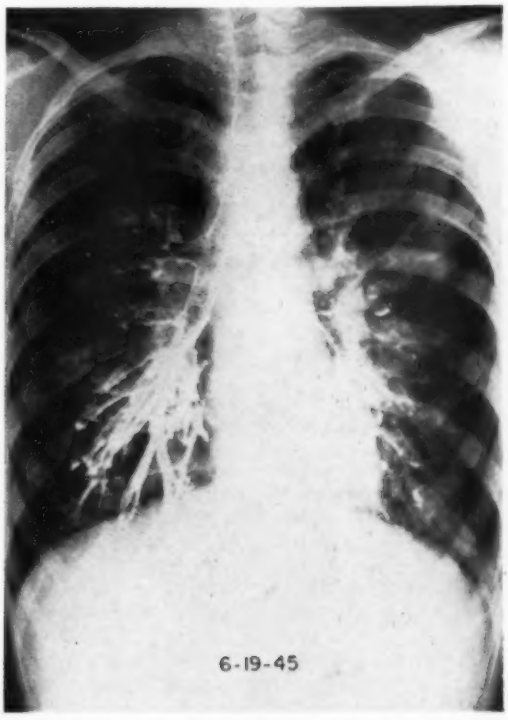
—Dr. Edward M. Hayden, Roentgenologist. Tucson.
Fig. 11A

Fig. 10. 11-28-44. Increased infiltration has developed at the right base and the appearance of a diffuse chronic bilateral pneumonia persists.

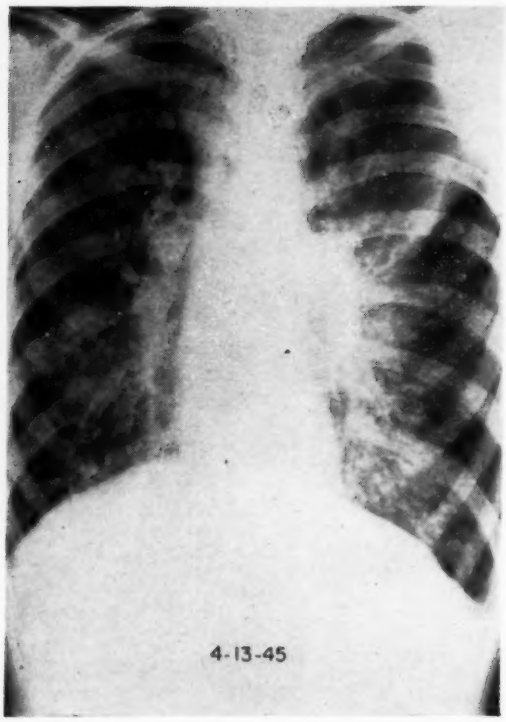
Fig. 11A and 11B. 6-19-45. Bronchograms demonstrate a severe saccular and cylindrical bronchiectasis bilaterally.



—Dr. Edward M. Hayden, Roentgenologist. Tucson.
Fig. 10



—Dr. Edward M. Hayden, Roentgenologist. Tucson.
Fig. 11B



—Dr. Edward M. Hayden, Roentgenologist, Tucson.

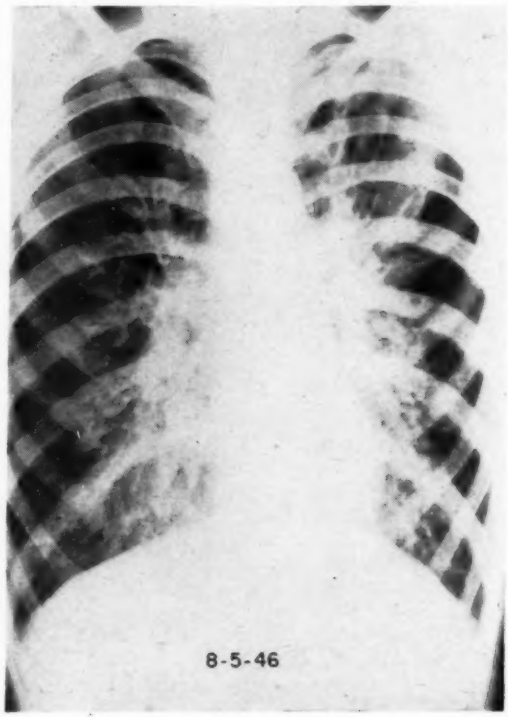
Fig. 12. 4-13-45. The fibrosis has increased and spontaneous pneumothorax has developed on the left, producing about 20% compression.

symptoms of iodism, even though it was administered in that dosage over a long period of time (3 years). Sulfathiazole in dosage of 2 gms. every 4 hours over a prolonged period of time, 6 days, failed to raise the sulfathiazole blood level over 1.0 mg. %, and, though the child had a voracious appetite, she reached a maximum weight of only 88 lbs. during her 17 years of life. We were unable to confirm the diagnosis of a mold infection in spite of numerous sputum cultures on Sabouraud's medium.

On physical examination the chest was surprisingly quiet. Scattered medium rales were heard only before cough over both lung fields. The abdomen was distended, and the child pot-bellied in the erect position. The blood pressure was 90/50, the pulse 92. Surprisingly enough there was no clubbing of the fingers, however the thumbnails were of the watch glass type. The skin was soft and moist, the temperature 99.4° at 4 P. M. Special laboratory studies showed a Basal Metabolic Rate or +20%. It will be recalled that iodides in massive dosage had been administered during the three years prior to the BMR test. The blood cholesterol was not done. The blood counts during the last six months of life ranged as follows: Hemoglobin 92%—95%, RBC 4.4 million to 4.6 million, WBC 11,350—15,950. The differential count was within normal limits on all occasions.

STOOL EXAMINATION was negative except for the presence of large amounts of neutral fats. An examination of the duodenal contents was not done. Urinalysis was within normal limits on all specimens examined.

The young lady was taken by her family to the California beaches during the summer months, and shortly after returning to Tucson, about September 7, 1946, she developed chills, high fever (104°), severe cough and dyspnoea. Penicillin was not employed because of the history of a severe asthmatic attack following its use on another occasion. Sulfathiazole in large dosage both orally and intravenously was used with no effect on the progress of the episode. O_2 was used to relieve the dyspnoea and cyanosis, which were severe. She was removed to St. Mary's Hospital on September 9th, 1946. An x-ray of the chest (Fig. 13) was done on admission, and this showed extensive peribronchitis with fibrosis, a recent pneumonitis of the left lung, and a small amount of pneumothorax sur-



—Dr. Edward M. Hayden, Roentgenologist, Tucson.

Fig 13. 8-5-46. Spontaneous pneumothorax has developed on the right, producing about 20% compression in the upper lobe, some atelectasis has developed in the upper third of the left lung, and the periphery of the middle third of the left lung has become emphysematous. The descending truncal structures are more accentuated.

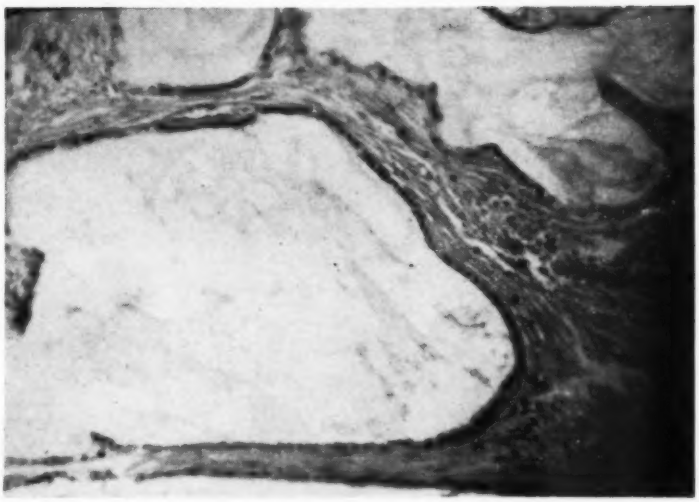


Fig. 14. Shows widely dilated pancreatic gland alveoli forming cystic cavities filled with inspissated secretion. — Dr. Geo. Hartman, pathologist, Tucson.

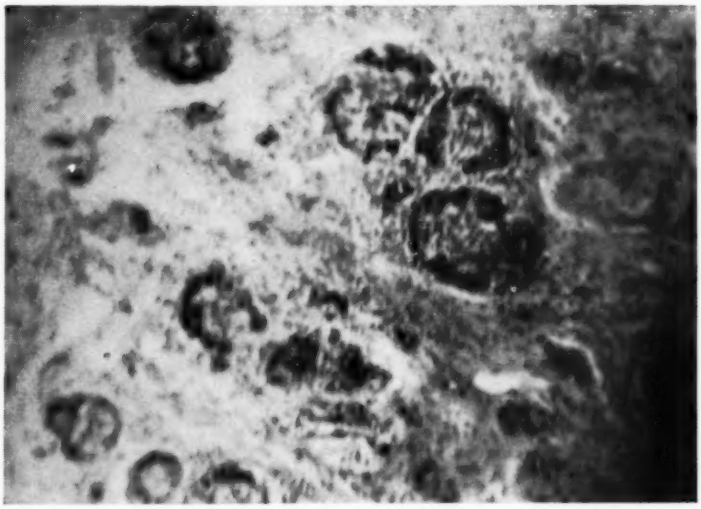


Fig. 15. Extensive fibrosis replacing acinic tissue, leaving isolated islands of Langerhans.

rounding the right upper lobe. This apparent pneumothorax was not confirmed at necropsy.

Oxygen was administered, and circulatory supportive measures were employed, but the patient went steadily down hill and expired at 3:35 P.M. on September 11th, 1946, 48 hours after admission. The antemortem diagnosis was extensive bronchiectasis bilateral (probably part of a cystic pancreatic fibrosis syndrome), and pneumonitis.

Permission was granted for a necropsy, which Dr. George Hartman of Tucson performed. The postmortem diagnoses were:

(1) Fibrocystic disease of the pancreas.
(2) Bronchopneumonia and pulmonary edema.
(3) Bronchiectasis.
(4) Multiple pulmonary abscesses.

SUMMARY

(1) A case report of fibrocystic disease of the pancreas is presented, with the classical pulmonary findings of extensive bronchiectasis.

(2) X-ray studies in serial during the life of the individual are presented.

(3) The age of 17 years reached by this patient is the oldest reported up to this time.

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"DESPOTISM BY CONSENT OF THE GOVERNED"

DR. JOSEPH H. HOWARD, President-Elect
Bridgeport, Connecticut

UNRESTRAINED power, whether in the hands of an individual, a group of ambitious but selfish men, or in a political party, is a peril to freedom. It is this inherent thirst for power which exists in man that is more dangerous to the welfare of the people than is the desire for riches. It is the duty of Government to protect its citizens and not to support them. Moreover, indifference on the part of the people may result in encroachment on their freedom with regimentation, dictation, and domination of the very lives and free will which we hold so dear.

Throughout the ages there are many examples of authority interfering with normal unity and mutual cooperation, bringing down from above ruthless rules and regulations which tend to encourage distrust and fear. Authority is always necessary, but only by the will of the people who recognize its abuses and remove that authority when it abuses its function, which is to maintain the general welfare of the citizen.

For thousands of years we have seen the countries of the old world reach the heights of great prosperity, only to have them collapse after Government control. Augustus Caesar, by his Roman Peace, placed a large part of the population on the dole with the expected results that the public payroll reached a point where taxes were prohibitive and the Empire collapsed. The people of the "Old World" have always lived in a system of "planned economy" in which production and distribution were controlled by authority and regulated by their will. Although rebellions were common, due to unrest of the populace and their desire for more of the things of life, change in rulers seldom had much effect upon the system of planning.

Diocletian, ruler of Rome, when confronted with the loss of most of the farming class and middle class business men, enacted laws to prevent farmers forsaking their land. Wages and price of goods were fixed. Police constantlly investigated activities of all citizens, and the heavy hand of government regulation was felt by men in all walks of life. The yoke of ever increasing taxes bore heavily on even the lowliest until collapse was inevitable.

Pericles, professing to be a protector of the interests of the Greeks, continued his dictatorship on a program of increased Government spending, and when disaster approached he sought safety as he thought, in a war against Sparta. The result is well-known.

More recent advocates of the State's supremacy are Hegel, the dreamer; Marx, the parasite; Bismarck, Hitler, and Mussolini, each with selfish ambitions of self-aggrandizement. Bismarck socialized Germany. The Germans never questioned authority. They accepted the regimentation, regulations, and discipline under the new order. They believed in a paternalistic Government that offered security through taxation by presenting a plan whereby money taken from the taxpayers was returned in part, as the central Government believed it was essential. It was a rather common remark, some years ago by many Americans, that Germany was many years ahead of us in social legislation.

The revolutionary spirit existed in America long before the war of 1776 brought the birth of our Republic. It had been a continuous revolt started soon after the landing of the Pilgrims in a determined effort against an authority attempting a planned economy. With the success of revolution, the Founding Fathers established a Government entirely new and different than any which had existed previously. Recognizing the weaknesses of Old World systems, they proposed a limitation of power by creating three branches of Government. The policy was that Government should derive its authority from the consent of the governed, an idea first written into a constitution in the Fundamental Orders of Connecticut in 1639. The Federal Constitution also recognized that State and Federal Governments must have some check upon each other. Americans are fortunate to have State and local Government to aid in control of Federal Government to prevent monarchy. The Constitution could have been ratified in 1789 only by specifically safeguarding the rights of the states.

At no time previously have we seen a group

Presented before the Conference of Presidents of State Medical Societies in Chicago, Illinois, Sunday, June 20, 1948.

of legislators proposing methods for limiting their own authority. The makers of the Constigrants of power. The Constitution restricted tution acted wisely in limiting the power of the President so that he could not become an autocrat. The powers of the Senate and House were definitely outlined and a Supreme Court established to interpret the laws of our Republic and to protect the rights of all citizens.

The Founding Fathers made no attempt to make this the most powerful nation in the world. They strove to make a weak central Government, giving the States great authority through the action of the individual citizen.

More specific prohibitions against the Federal Government exist in the Constitution than grants of power. The constitution restricted taxation by providing in Article 8 that "all duties, imposts, and excises shall be uniform throughout the United States." An effort to levy an income tax was ruled unconstitutional, and in 1913 an amendment to the Constitution was ratified, the sixteenth Amendment, specifically authorizing the taxing of incomes without apportioning among the several states. Incidentally, Connecticut never ratified this amendment.

Because of our Constitution and Bill of Rights, with our freedom of worship; freedom of choice; freedom to select our government; freedom to say what we wish, America has become the greatest nation in the world. There is an ever increasing expansion of desire for freedom—freedom from want, freedom from fear, freedom from discrimination—the desire for opportunities for useful employment, adequate education, decent housing, improved health facilities, and services and opportunities for more leisure. There is an increasing belief that these are only possible by financing and direction of the Federal Government.

When the citizens lose interest and faith in their local Government and become convinced that only the Federal Government can direct their activities and lives, they are heading closer and closer to a collectivistic state. Frontiers are gone, but in the age of fast motion we Americans still must keep our community life and spirit foremost in our endeavors. Regulations from a far distant bureaucracy can never give us the comfort and self-assurance of local self-government. So it was even in the days of the vast empire of Rome.

We abhor a planned economy in America. Here we live in an economy that individuals plan and control. We do as we please unless it violates the law of our land or interferes with the progress and comfort of our neighbors.

Our success comes from individual effort. When Government becomes all-powerful it is a monopoly and will restrict and hinder progress. No competitor will be tolerated by Government in a particular sphere.

Individual rights and self-government are basic in the American philosophy. The Declaration of Independence states that government derives its just powers from the consent of the governed. The State is, therefore, the creature of man and not man a creature of the State.

John W. Davis once said, "If experience teaches anything, it is that of all methods of government, bureaucracy is the least responsible, the least intelligent, and the most arrogant and tyrannical."

In bureaucracy action is slow, responsibility diffused, decisions uncertain and shifting. Once a bureaucracy takes over there is a gradual but certain deterioration of constructive progress with ultimate cessation of all individual contributions to the welfare of the State.

In all history there is not a single instance of a despotic government that did not fall into decay intellectually and morally.

Frederick Bastiat, born in France in 1801, although a leftist in his early life turned farther to the right as he delved more and more into Socialism. Even then he foresaw something of the future when he prophesied, "Minds will be an anarhcy; morale will be shipwrecked; there will be violence; inextinguishable hates; political convulsions, revolution without end, ruins over which all forms of Socialism and Communism attempt to establish themselves."

The great difference between the ideologies of the Old World and those of this Republic is that ours are guided by principles of liberty and order. There is the desire of the individual to control and regulate his own affairs for his own good, and the attempt of society to curtail the activities of the individual for what is believed to be for the common good. It is the difference between liberty and authority, the former of which can result in anarchy, and the latter in despotism. We see every day the abuse of the term, liberty.

Those who would destroy our government hide behind a smoke screen proclaiming in a loud

voice that their liberty is being violated. The ever increasing legislation to control the conduct of people is far from the liberty known to our Founding Fathers. There has developed a mania for regulating people, most of which is beyond the ordinary necessity to protect individuals' rights and safeguard society.

We have no fear of an autocrat governing our country under a despotic system, but we must ever be alert to prevent the despotism of a bureaucracy. President George Washington in his Farewell Address said, "The spirit of encroachment tends to consolidate the powers of all the departments in one, and thus to create, whatever the form of government, real despotism."

Edmund A. Walsh, S. J., Dean of the School of Foreign Service, Georgetown University, says in his recent book, "Total Power," "We, who have lived long in Washington observe the arrogance and illiberality of some of these Mandarins when transplanted to bureaucratic positions in government and clothed with brief authority. We saw them rushing from department to department, from conference to conference, each with a dictator's baton hidden in his brief case, hoping and planning and scheming for enlarged but centralized power."

There is a tendency for Federal Government to encroach more and more upon the powers of the States. It is largely the fault of the states themselves. Should such a process persist and the States continue to shirk their responsibilities, they may eventually become mere geographical sub-divisions of the Federal Government, which, unfortunately, in some respects, they are already.

We can be justly proud of the accomplishments of our great country. With less than 7% of the earth's population, we have created more new wealth than all the other peoples of the earth. We have more churches, schools, libraries and hospitals than any other country. With shorter working hours, there is greater opportunity for recreation and personal advancement. Our citizens have, by voluntary contributions, given million to less fortunate in other lands during periods of disaster and distress.

Since the foundation of this country, we have conquered many obstacles raised by soil, floods, droughts, and other seemingly insurmountable problems. The aggressive people of many lands came to this country in large numbers to participate in a pioneering struggle. It has not been easy. There are risks and many setbacks in an effort based on freedom. All men are created equal, but there are great differences in health, physical strength, intelligence, aggressiveness, and the will to succeed, which cannot be avoided. Opportunities should and must be offered to those capable of improvement, but constitutional types cannot be changed and there will always be some distinction between various groups of individuals.

The history of "benefits" granted to people is too well-known through the ages. It only increases the desire for more benefits, arouses within them a spirit of competition for equality between individuals and nations, which is not practical and can never exist in this world of varying physical and mental capabilities.

The proletariat would do away with the ruling class; the little politicians want a higher office; nations look to their borders for more living room or protection against a phantom aggressor. The individual thinks of achievement through personal effort or of being sheltered by a system of security. The personal satisfaction of reward for effort is not considered by those who seek only enjoyment and security.

Through clever manipulation and infiltration, despotic rule is being imposed on many nations at the present time and is even threatening the very political institutions of our great Republic. In the new type of despotism, people are demanding something — anything different to escape from the present system. The manner of approach is by indirect methods, by breaking down public trust and discrediting the existing form of Government. Fortunately, we have a strong bulwark against rapid inroads by foreign ideologies. Based on a plan of a constitutional democracy, we avoid the pitfalls of a democracy by which the people rule themselves either directly as an uncontrolled mob, or by unrestrained representatives in which the majority alone governs. The Declaration of Independence placed in the hands of the people the source of sovereign power. It specifically states that the government must derive its power from the people. This limits the power to that granted by the people, and elevates man to a level which makes him the force that controls the state and not a creature of the state.

Any usurpation by the government of powers not granted to it is an act of tyranny. The people soon lose their sovereignty when they acknowledge that the state has certain inherent

prerogatives because it is a state. The expansion of authority in the executive department of a government under the guise of emergency, even when such emergencies have passed, is a danger in the ever-increasing centralization of authority in the hands of one or a few.

Fascism, Nazism, and Stalinism all followed this pattern. It is all based on the principle that one or a few men know best how to govern the people, offering great social and economic benefits which appeal to the masses not familiar with political techniques.

Bureaucracy in Europe has spread like wild fire at the expense of the citizens, with great increases in taxation to finance a system of social security which makes each a dependent of the State, and a political slave. Huge numbers are now on the Government payroll to help perpetuate the existing government, which can only continue in office by force. Recent figures from abroad indicate that in England ten per cent of the population are on public payrolls, and in France the number reaches twenty per cent.

For several years past we have seen those in our own country who would supplant our system of free enterprise with a new economic order based on socialistic ideas imported from many of the now destitute countries. Always foremost in the minds of these so-called benefactors has been the theory of increased economic benefits based on the philosophy of taking from the rich to give to the poor. It was Benjamin Franklin who said, "Those who would give up essential liberty to purchase a little temporary safety deserve neither liberty nor safety."

The German people allowed Hitler to control their economy and rule their very lives under the subterfuge of philanthropy. No planned economy can exist long without some type of emergency technique, and in Germany Hitler was compelled to initiate a war to save his face. He was able to convince the intelligentsia, idealists, social reformers, and industrial unionists that his government alone was capable of giving mankind inexhaustible blessings.

The ancient Greeks had great faith in the ability of the government to take care of their needs and had no conception of the responsibility of the individual nor of his self control. Had they realized that majority rule would destroy freedom and put the minority at the mercy of the mob, they might well have prevented disaster and "the glory that was Greece" might well have endured to this day. It is only by individual initiative that the great inventions in American industry have been achieved. No one directed the pioneers of American science and industry in their efforts. The restraint of regimentation or prohibitive taxation would have cost this country many of the worthwhile contributions to the world at large.

All was not smooth sailing in this great country, for from the beginning dissention existed which at times threatened our very existence. Alexander Hamilton and the Federalists leaned towards Britain for salvation from the terrors of continental Europe, whose rulers looked with greed upon a young country The Federalists were opposed by Jefferson, who had no fear of Napoleonic Imperialism. In 1795, because of Washington's approval of John Jay's Treaty with England, The Father of our Country was criticized by Jefferson who cried, "Curse on his virtues, they have undone the country."

It was not until after the War of 1812 and the signing of the Treaty of Ghent in 1815 that America, free of its continental ties and desirous of non-intervention in Europe, went forward to become in our own way the greatest nation of all. Setbacks have occurred since then, but always to solve these problems we have never hesitated in the forward progress to greater achievements.

It is not the will of our people that a single political party should control not only the government but the methods of production and distribution, and all other activities of the citizens. The failure of the socialistic government in England to attain their goal is evidence that a planned economy falls down on the job of production, until its very existence depends upon the loans and gifts of capitalistic countries.

Rather recently we heard much of a plea for government control of our railroads. One has but to travel by rail in any European country to be convinced that there is no comparison between those countries and the efficiency, comfort, speed and safety of privately owned roads of this land.

Freedom is one of the greatest gifts that God has bestowed upon men. His own conscience tells him whether he shall contribute to the well being of himself and his fellow man, and at the same time makes him realize that freedom is not synonymous with security. Even in freedom one often passes through periods of privation and

want. This is the particular affair of each individual. Unless man recognizes the importance of this, he becomes easy prey to control by a despot or a crowd who shall then direct his activities to the detriment of the individual.

The threat of despotic rule throughout the world is increasing daily. The technque has been changed from the immediate overthrow of capitalistic countries by force, as advocated by Lenin, to the more subtle process first proposed by Marx and amplified and improved by Stalin. This is the system of infiltration, intrigue, dissension, labor unrest resulting in repeated strikes, class hatred and the promotion of collectivistic measures in existing government agencies.

Lenin in 1920 wrote, "We have to use any ruse, dodges, tricks, cunning, unlawful methods, concealment and veiling of the truth in dealing with capitalistic countries."

When a country loses its moral sense and denies the existence of a Supreme Being, it is well down the road to self-destruction. The atheistic philosophy of Lenin is well exemplified in his own words when he states, "We must never forget that we repudiate all forms of morality which has for its source any inspiration foreign to the social classes and which is not inspired by the interest of the class struggle of the proletariat. For us morality drawn from outside human society does not exist; it is a lie. Our morality must be, and is, subordinated to the class war of the proletariat."

The theory of Communism is that everything is run by the masses. However, there must be a strong individual at the head of such a government to filter out those things which he and his subordinates feel are detrimental to the success of the program. The explanation of the directors of this philosophy is that when the desired result is accomplished, the dictator, despot or director will then retire to allow the further development by the action of the proletariat.

When in history has any dictator retired willingly to allow control by the people? The same type of propaganda was used in other countries before complete submission to the dictates of the central authority.

Russia is not anxious for war with us. Infiltration by Communists is less costly, and by experience in European countries now under the domination of the Soviets, more effective than the bloody revolution as advocated by Lenin. In our desire for world peace, we have given so much and received so little. This was evident at Yalta, Teheran, and Potsdam when the President spoke of a "family circle," a phrase which did not arouse enthusiastic response in Stalin, the man of steel who had been educated in the field of revolution and accustomed to extermination of his enemies. Lenin once said, "We shall oblige America to spend herself into destruction." Are we to regard this as prophetic?

Despotism thrives on excessive taxation of the people. In Russia it is estimated that 70% of the income of all individuals is taken by the state. Hitler appropriated one half, and Mussolini 40% of the entire income of the people. Total investment in new capital issues for business expansion in the U. S. in 1947 was less than the total for twenty years ago. Because of the drain of individual and corporate income through taxation, people have less money to invest in corporations, and yet this type of investment is indispensible in an economy such as ours. The reflection of decreased net income in spite of a greatly expanded gross national income, is already evident in the support of our hospitals, Community Chests, private schools, colleges, and philanthropic organizations. Due to insufficient income for these and other needs the tendency is to appeal to the Federal government for aid, and as years pass the ultimate must occur—the control of all of these organizations in the central authority.

In a recent issue of the McGraw-Hill publications, James H. McGraw Jr., in an editorial headed "Why You Cannot Get Ahead as Your Father Did," pointed out that "A tax revolution which is jeopardizing our chances of getting ahead, our very jobs, is gripping America today," and he said that "The United States is being forced towards socialism by a tax revolution of far-reaching consequences."

Not only has the tax rate that our nation can safely carry passed the danger point, Mr. McGraw said, but he pointed out that the heavy taxation of large incomes, blocks and frustrates the investment of private wealth in new business ventures.

In one of his columns in Newsweek magazine, Henry Hazlitt called attention to the "striking similarity" between one of the statements in the Communist Manifesto, which was published a century ago, and a sentence from the second annual report of the President's Council of Eco-

nomic Advisors. The Manifesto argues that accumulations of capital increase "in the burden of labor" and "force wages down almost everywhere." The Economic Advisors, writing a hundred years later, say "The accumulations of capital over the years have in fact involved deprivations of the rank-and-file worker."

Further quotations from the report also indicate that the Economic Advisors are definitely distrustful of the free enterprise system. They state that the cream of American industrial production has "in large measure gone to the relatively few," and that the rest of us have been "subsisting on skimmed milk." And they also observe that "the small number of well-to-do will not be able to absorb the possible output of consumers' goods."

If all that is true, it is obvious that the great masses of Americans are being cruelly exploited, but substantiating the doctrine with facts would prove to be an extremely difficult undertaking. As a number of objective surveys have shown, the percentage of our national income received by people of modest means—that is, in the under $5,000 a year bracket—has been steadily increasing, while the percentage going to people of large means—$25,000 and up—has been steadily decreasing. Equally important, the expenditure of American business for the services of labor, for the people who use the tools, has tremendously increased. At the same time, the expenditure for dividends, to the people who own the tools, has actually decreased. As Mr. Hazlitt puts it, the effect of invested capital "has been enormously to increase the quantity and improve the quality of the tools at the disposal of the worker, enormously to increase his wages and the goods available for all of us as consumers."

How do workers fare in nations where accumulations of capital are not permitted, save in the name of the state? The Soviet Union, of course, is the principal example of that kind of economic system. It has vast resources, but the standard of living of its people is one of the lowest in the world. No other nation has carried ruthless exploitation of the masses to greater lengths. Capitalism, on the other hand, has given the average American a standard of living unapproached on earth, and it has given him maximum freedom with it.

Taxation — Federal, State and local — takes thirty-one cents of every dollar received by every man, woman and child. Taxes have increased eight hundred per cent since 1941, the result being that nineteen minutes out of every hour of work is contributed to the government, or two and one-half hours out of every eight-hour day. Many of these taxes are hidden, and only become evident when we realize that a year ago the average working man and woman in the United States paid in taxes directly or indirectly $888 to support government. It is not contended that all of this is wasted. Vast sums are needed to support the Army, Navy, Post Office Department, and other branches of the Federal Government. It is also necessary to pay the interest on our debt, which amounts to three per cent of our entire national income. The average wage earner pays $100.00 per year in taxes to pay the interest without reducing the debt.

Socialistic governments abroad are a terrific strain on our economy. It is ironical that Socialism cannot pay its own way, and capitalistic America must finance these failures. Our dole to Germany amounts to a billion dollars a year, and to the Southern half of Korea a quarter of that amount. Since European countries depend upon Germany for their existence, and the dismantling of industry in that country has crippled trade to neighboring states, we must of necessity aid these countries unable to obtain goods from their former source.

Russia is to collect $100,000,000.00 from Italy, where no Russian soldier ever fought, and we Americans give dollars to Italy which eventually wind up in the treasury at Moscow. Trade agreements now exist between many countries of Europe, Great Britain, and South America, but we alone give goods and money and receive nothing in return. The result is that the American taxpayer pays more in hidden and indirect Federal taxes than he does for food.

One hears so often of Federal aid. The government cannot produce wealth. It is only by taxing the citizens that the Federal treasury can accumulate funds. Where subsidies are given to any State for any purpose, it is the people's own money that is being returned, minus a considerable proportion used for maintaining an ever-expanding Federal payroll.

So often stated it is now an accepted fact in the minds of many Americans, that a few people control the wealth of this country. A recent study at Notre Dame University shows that over a thirty year period, 88% of the total national income was paid to persons receiving

less than $5,000 a year, 8% to those in the $5,000 to $25,000 bracket, and 4% to those receiving more than $25,000.

America has one-sixteenth of the earth's population, yet she produces seven-sixteenths of the world's goods.

Capitalism has made great contributions to the world by its generous support of all the arts and sciences. It has accepted risks in financing industrial ventures research, and in promoting better working conditions and higher wages than in any other country in the world. More can be done and will be done to improve labor-management relationship, but only by a system of give and take by both parties concerned. When mutual understanding brings capital and labor to the conference table for sound, constructive and peaceful discussions, the threat of foreign ideologies will have been considerably lessened.

It is often said that those who preach the doctrine of preparedness and attempt to arouse the citizens to an impending danger are alarmists. Is there a threat to our form of government? I quote from Part I, Section II of the present "Subversive Activities Control Act of 1948:" "The recent success of Communistic methods in our countries . . . present a clear and present danger to the security of the United States . . . and make it necessary that Congress enact appropriate legislation."

It is difficult for those of other lands to realize that the success of our Republic is due to voluntary cooperation. This frequently seems the long, tortuous way, clumsy and halting at times, compared with the swift, direct action of the totalitarian methods. We are not solely interested in mechanization of the democratic processes. We like to deal more intimately with affairs that safeguard the individual, offer opportunity for self-advancement, and promote social welfare.

The poor man is better off here than anywhere in the world. What is considered luxury in other lands is common among those of our citizens in the lowest income group. Wages are high enough for the people of this country to provide 90% of the relief for the entire world. Neither Communism nor Socialism produce wealth, but competitive enterprise does produce wealth, and has made America the greatest producer in the history of mankind.

We cannot and should not be content to boast of our achievements when others are working feverishly to destroy the foundation of our government. In many countries the people, through indifference, have lost their liberties within the past ten years. Eternal vigilance is the price of liberty, and apathy is freedom's greatest peril.

The indifference of voters on election day is appalling. The technique of discouraging people to vote for candidates for public office or in trade unions has become one of the most potent weapons of the radical element.

In the National election of November, 1946, it is estimated that 91,634,472 Americans were of voting age, yet only 35,000,000 were interested enough to cast a vote. When Hitler came into power in 1933, 88.5 per cent of qualified voters went to the polls, and although he did not receive the majority of votes, by clever splitting of the opposition into many parties, he polled the largest number of votes. The formation of many parties in any organization also follows the policy of those who would destroy.

Perhaps the greatest menace to our government is the indoctrination of our youth with the philosophy of Marx, Lenin and Stalin. Unhampered for many years, a group of "progressive" educators have filled our elementary schools with textbooks which openly discredit the heroes of our great land and scoff at our democratic ideals.

Professor Harold Rugg of Columbia University, who is the author of textbooks which are used in over 3,000 school systems, writes of "the unthinkable salute to the flag and the mumbling of an oath of allegiance." Is it surprising, therefore, that a survey of a few years ago showed that a lack of knowledge of American History is common among our students? Thousands of college freshmen, when interviewed, thought that Thomas Jefferson founded the Saturday Evening Post, that Alexander Hamilton invented the telephone, and that Walt Whitman was a jazz band leader. Twenty-five per cent did not know that Abraham Lincoln was President during the Civil War. More than thirty per cent did not know who was President during World War I. Some thought Alf Landon was.

In this country we need a revival of fundamental teaching with respect to the Declaration of Independence, the Constitution, and the

Bill of Rights. Regarding the latter document, a survey about a year ago, conducted throughout the United States, demonstrated that thirty-one per cent of the people had never heard of the Bill of Rights; thirty-six per cent had heard of it but did not know what it was; twelve per cent gave confused answers, and only twenty-one per cent had a reasonable idea regarding it.

It was Lenin who said, "Give me four years of a child's life, and the seeds that I sow shall never be uprooted." Hitler first started his program in the schools. So often we hear in our own country, "After all, there must be academic freedom." We must not confuse freedom with license. Because one is free to spread health, he should not also be free to spread disease.

To combat the insidious encroachment of Godless and destructive ideologies into our land, there must be a reawakening of Christian faith. A people without belief in a Supreme Being cannot long endure. Marx in "Das Kapital" wrote, "The democratic concept of man is false because it is Christian. The democratic concept holds that . . . each man is a sovereign being. This is the illusion, dream and postulate of Christianity." Over 250 years ago William Penn said, "Those people who are not governed by God will be ruled by Tyrants."

The preservation of freedom in our country is everybody's job. It is not unusual to hear physicians say, "Well, what can I do?" There is no distinction between John Smith, M. D. and John Smith, citizen. The unfortunate tendency of members of our profession to become self-centered, isolating themselves from community activities, has deprived their neighbors of wise counsel and allowed do-gooders and social reformers to carry on programs which, distasteful to our profession, are mere stepping-stones to a complete surrender to foreign ideologies which will ultimately result in destruction of freedom.

It requires more than lip service. Grea demands will be made upon your time and energy. Is it worth it? If you believe that you can influence and help your fellow Americans in the field of education, government, labor-management, newspapers, books and radio, and strengthen those principles which we, as Americans, hold dear and which mean so much to you now, and which should guide your children in a happy, prosperous and God-loving world in the future, it is your privilege and duty to act now. Should you be lax in your duty or indifferent to the challenge, it might be well to recall the words of President William McKinley when he said: "Our strength rests in our patriotism. Peace and order and security and liberty are safe so long as love of country burns in the hearts of the people . . . liberty, my fellow citizens, is responsibility, and responsibility is duty, and that duty is to preserve the exceptional liberty we enjoy within the law and for the law and by the law."

Arizona Medical Problems

CONSULTATION AND CASE ANALYSIS

ARIZONA MEDICINE again presents an unsolved and difficult case from the practice of Arizona physicians, with the Case-Analysis and comments of a specially-chosen and nationally-known Consultant.

Any physician who has an undiagnosed case which has defied other methods of solution may send it for consideration. The case should be completely worked up, but an editor will help compose the report. Whenever the need for an answer is urgent, the Consul ant's reply will be sent direct to the submitting physician, before publication.

Please send communications and data to Dr. W. H. Oatway, Jr., 123 S. Stone Avenue, Tucson, Arizona, or care of The Editor, Arizona Medicine.

The *Consultant* for the current case is *Dr. John C. Jones*, thoracic surgeon of Los Angeles. Dr. Jones was trained on the famous Thoracic Service at the University of Michigan, and has gone on to a notable success in collapse therapy for tuberculosis, in surgery of the lung and mediastinum, and in the newer cardio-vascular surgery.

Dr. Jones is surgical consultant for Barlow Sanatorium, Associate Professor of Surgery at the University of Southern California, Chief of Thoracic Surgery at the Los Angeles Children's Hospital and the County General Hospital. He is the author of numerous publications on his several specialties.

Among his memberships are those in the American Surgical Association, the American Association for Thoracic Surgery, the American College of Surgeons, the Society for Vascular Surgery, and he is a diplomate of the American Board of Surgery. He is personally well-known to many Arizona physicians and surgeons.

CASE NUMBER X

The patient is a white male rancher, 34 years of age.

All his life he has noted pain in the hands, elbows and shoulders after using his arms. The pain begins at once, and is present during the following night, and for several subsequent nights after severe exertion. It is bilateral, symmetrical, and equal. The hands swell slightly when the pain is severe, but there has been no change in color or temperature, and no pain elsewhere in the body.

During a spell of pain he also wakes at night with the feeling that his arms are asleep, and he is forced to move them or "hang them down" for relief. There has been occasional pain in the shoulders with elevation of the arms, but none in the neck. The symptoms are worst in the mornings.

The patient is very active and uses his arms a great deal in his ranch work. He modified the stated duration, "all his life," by saying that the pain was first noted when he began to milk cows at the age of eight years. He stated that his mother has had a similar syndrome, but now notices it less, since she does less manual work.

There were few other complaints. He has a deafness in the right ear, with a perforation of the drum. He has always had a fast, regular heart-beat.

He had his tonsils out as a child; a mastoid and ear operation several years ago; a sub-mucous resection; an appendectomy; and an injury to the left collar-bone two years ago. His weight is constant at 180. He smokes 10 cigars and 30 cigarettes per day.

There were few abnormalities on **physical examination.** He was well-muscled; the fundal vessels were normal; there was a slight discharge in the right external auditory canal; the maxillary sinuses were slightly cloudy on transillumination; the chest and neck were normal in contour; the heart, lungs, and diaphragm were normal by fluoroscopy, and no cervical ribs could be seen. The hands were normal in color, temperature, and function, and the palms were sweaty. All reflexes were normal as was the mobility of the neck and extremities.

The pulse rate was 84 per minute bilaterally and the rhythm regular. The mitral sounds were accentuated, as was the pulmonic second sound. The blood pressure (on two examinations) was 118-120/100-105 in the right arm, 120-122/100-105 in the left arm; 160/110 in both legs.

X-rays of the cervical spine, chest, and both shoulders showed no unusual changes, and no cervical ribs.

QUESTIONS—

1. What is the probable diagnosis of this condition?
2. Is there anything else which needs to be done diagnostically?
3. Can the condition be corrected? How? What is the chance of cure?
4. Is the familial relationship possible

—M. D., Tucson.

CASE-ANALYSIS AND ANSWERS—

My initial impression in this very interesting case-report is: *Bilateral scalenus anticus syndrome.*

This disease entity must be suspected in all patients who give a history of cervicobrachial pain in one or both arms where there has been no history of previous injury, and where no cervical rib can be demonstrated by roentgen study. The pain is characteristic, radiating from the shoulder down the arms and usually follows exertion or positional change where the arms are held forward or in abduction.

In the clinical description there is no mention as to whether or not the radial pulse can be shut off by hyperabduction of the arm or on deep inspiration with the arms in abduction. In a scalenus anticus syndrome or cervical rib syndrome, this finding is always present and represents occlusion of the brachial artery by compression of that vessel over the cervical rib or over the anterior scalenus muscle.

Differential diagnosis in this case must include:

1. Cervical rib syndrome, which can be ruled out by the roentgen studies.
2. Scalenus Anticus Syndrome.
3. Cervical Nucleus Pulposus.
4. Posture.
5. Cervical Arthritis.
6. Scoliosis.
7. The hyperabduction syndrome, in which the brachial artery and a portion of the brachial plexus are compressed by tendon of the pectoralis minor muscle.

Of these entities which are listed here, the majority can easily be ruled out by the evidence at hand. Certainly there should be roentgen evidence of a cervical rib if such were present and causing these symptoms. The presence of a cervical intervertebral disc could be ruled in or out by myelograms. There is no description of the patient's posture but it is well recognized that patients with drooping shoulders and poor muscle tonus may have postural changes causing traction on the brachial artery and brachial plexus where these structures are dragging over the first thoracic rib. Degenerative arthritis would probably not appear at the early age at which this patient's symptoms began, and certainly should produce roentgen evidence as well as clinical features such as limitation of motion and rigidity of the involved spine.

It is most important that a pulse test be performed on this patient by palpation of the radial pulse with the arms in extreme hyperabduction. If compression is present, such as is found in scalenus anticus syndrome, the radial pulse will be shut off or markedly diminished in volume. This same test can be demonstrated by having the patient take a deep breath with the arm in abduction and the head turned toward the opposite side; if a compression syndrome is present, there will be marked diminution or total absence of the radial pulse during this maneuver. If no sign of artery compression can be detected, then the diagnosis of herniated nucleus pulposus of the cervical spine must be considered and a very careful neurological examination be performed, and myelograms may also be necessary.

The treatment for scalenus anticus syndrome is usually surgical. Such lesions are usually amenable to simple division of the anterior scalene muscle. If a cervical rib is present, the rib must be resected. Division of the scalene muscle relieves the compression syndrome on both the brachial artery and brachial plexus.

It has been the opinion of Wright that most cervicobrachial pain is probably on the basis of posture. He cites the fact that in embryological development the nerve roots take off at right angles to the spinal column in the manner found in the quadruped. Embryologically also, the greatest diameter of the upper thorax is in the anteroposterior planes. In the young adult the diameter is radically changed so that the longest diameter is now in the transverse plane and since the individual is now a biped, the weight of the shoulder girdle and direction of the upper extremities from necessity has changed the angle of the nerve roots to an acute angle. In this manner, the brachial plexus is drawn downward over the upper rib of the thoracic inlet. Any abnormalities of the first thoracic rib, or the presence of a cervical rib, would greatly exaggerate the tension on the vascular and nerve structures.

Even in the absence of any such abnormalities, where there is a very poor posture and drooping of shoulders and poor muscle tonus, there may be a considerable drag of the structures over a perfectly normal first rib. In cases where the scalenus anticus syndrome is not present, where there is no explanation of the pain on the basis of a cervical rib or ruptured nucleus pulposus of the cervical spine or other obvious pathology, and where poor posture is obviously present, the treatment then is purely conservative. This involves physiotherapy, improved posture, and careful attention to the sleeping position so that the arms are not allowed to assume the position of abduction. A worthwhile bibliography on this subject is included in two articles: J.A.M.A. Vol. 137: No. 6, June 5, 1948, page 508—Author: G. E. Haggart; and Surg., Gyn., & Obst., Vol. 85, December 1947—Author: Adson.

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MISCELLANEOUS SECTION

The Arthritis and Rheumatism Foundation

A new organization, The Arthritis and Rheumatism Foundation, h as been organized to promote a united nation-wide attack on arthritis and other rheumatic diseases, W. Paul Holbrook, M. D., Tucson, Arizona, president of the Foundation, has announced.

The new Foundation is sponsored by the American Rheumatism Association in cooperation with the National Arthritis Research Foundation, The Detroit Fund for Crippling Diseases, and others interested in bringing about a unity of effort in combatting one of the biggest problems confronting the medical profession—the seven and one-half million persons in the United States afflicted with arthritis or related disorders. Representatives of the three organizations are included in the seventeen prominent physicians and business men on the board of directors of the new Foundation, which has been incorporated in the state of New York.

The medical policies and activities of the new Foundation will be under the direction of a Medical and Scientific Committee now being organized.

The chairman of the board of directors is Floyd B. Odlum, Indio, California, president of the Atlas Corporation.

"The organization," Dr. Holbrook said in his announcement, "has been created to unite the efforts of lay and medical leaders in developing a new voluntary health agency, comparable, in the field of rheumatism, to such agencies as the National Tuberculosis Association, The National Foundation for Infantile Paralysis, and the American Cancer Society."

The main objectives of the new Foundation include the making of a nation-wide survey of what can and should be done to combat the problem of arthritis; arousing the public and the medical profession to the need for action in this field; and the financing of a program designed to accomplish the following:

Development, with the aid of National Research Council, of a nation-wide research program designed to mobilize facilities both of the nation's medical schools and of the basic sciences, in the search to discover the cause and better methods for the prevention and cure of arthritis and other rheumatic diseases.

Establishment of fellowships, designed to increase the number of able men qualified to

conduct research and to specialize in the treatment of these diseases.

Development of key centers throughout the country devoted to research, teaching and treatment, coordinated with medical schools.

Promoting a program of medical education to increase the appreciation of the profession as a whole of what can and should be done to bring effective treatment to rheumatism patients.

Fostering the development throughout the nation of more adequate provision for rheumatism patients, particularly in connection with the work of general hospitals.

It is proposed to have thirty-eight local chapters of the Foundation, which will cover the entire nation. The main objectives of these state and area chapters will include the development of local programs designed to provide adequate diagnosis and treatment for persons within the area of the chapter who are suffering with arthritis and other rheumatic diseases and, in particular, to provide such aid early enough to increase the prevention of chronic crippling con ditions. The chapters will work in close cooperation with state and county medical societies.

Chapters also will help integrate programs of investigation within their areas as well as raise funds for the purpose of financing such local programs, and providing an equitable share of the funds needed to promote the national program of research as well as general educational and planning activities designed to support and increase the effectiveness of local efforts.

"Voluntary health agencies," Dr. Holbrook said, "have been criticized for not cooperating with each other to avoid duplication and undue multiplicity of appeals. It is the intention from the outset that The Arthritis and Rheumatism Foundation cooperate to the greatest extent with other organizations. For instance, the Foundation will undertake to cooperate closely with the Council on Rheumatic Fever of the American Heart Association. In the field of rehabilitation there should be an opportunity to work out joint rather than competing plans with such organizations as the National Society for Crippled Children and Adults. The very important mental aspects of rheumatism may be best investigated in cooperation with a program sponsored by the American Psychiatric Association."

In addition to Mr. Odlum and Dr. Holbrook, the board of directors of the new Foundation are:

Cyril H. Jones, Shelburne, Vermont, former head of the Milton (Mass.) Academy, vice chairman and vice president;

Hayden N. Smith, New York, New York, member of the firm of Winthrop, Stimson, Putnam and Roberts, secretary;

James G. Blaine, New York, New York, president, Marine Midland Trust Company of New York, treasurer;

David G. Baird, New York, New York, of the insurance firm of Marsh and McLennan;

Walter Bauer, M. D., Boston, Massachusetts, director of the Robert M. Lovett Foundation for Crippling Diseases and associate professor of medicine, Harvard University;

Ralph Boots, M. D., New York, New York, director of the Edward Daniels Falkner Arthritis Clinic at Presbyterian Hospital and professor of clinical medicine, Columbia University College of Physicians and Surgeons;

A. B. Frey, St. Louis, Missouri, attorney, and president of the National Arthritis Research Foundation;

Richard H. Freyberg, M. D., New York, New York, associate professor of clinical medicine, Cornell University Medical College and president of the American Rheumatism Association;

George L. Harrison, New York, New York, Chairman of the Board of New York Life Insurance Company;

H. J. McLaurin, Detroit, Michigan, president and director of G. M. Underwriters, Inc., and General Agent of Aetna Life Insurance Company, and trustee of The Detroit Fund for Crippling Diseases;

Frank Mandel, Chicago, Illinois, Mandel Bros. Department Store;

Richard S. Reynolds, Richmond, Virginia, president of Reynolds Metal Company;

Charley J. Smythe, M. D., Plymouth, Michigan, medical director, William J. Seymour Hospital, Eloise, Michigan;

Robert M. Stecher, M. D., Cleveland, Ohio, past-president of the American Rheumatism Association;

Howell Van Auken, Detroit, Michigan, member of the law firm of Lucking, Van Auken, Schumann and Greiner, and trustee of The Detroit Fund for Crippling Diseases; and

Charles B. Wrightsman, Houston, Texas, president, The Standard Oil Company of Kansas.

Appointment of ten nationally known physicians and scientists to the Medical and Scientific Committee of the reecntly organized Arthritis and Rheumatism Foundation has been announced by W. Paul Holbrook, M. D., Tucson, Ariz., president of the Foundation.

The committee will guide the medical policies and activities of the Foundation in its attack

on one of the largest problems facing the medical profession, the seven and one-half million persons in the United States suffering from arthritis or related disorders.

Functions of the committee will include the development of programs which can be undertaken by the Foundation's 38 local chapters which are being organized throughout the country, and advising and guiding the chapters in carrying them out.

It will establish and promote medical standards, particularly with regard to rheumatism clinics, which will guide the chapters in their work in their localities for the development of better clinical facilities for the care of rheumatism patients. It also will establish standards and goals for medical education in the field of rheumatism on various levels such as:

Undergraduate medical education, graduate education aimed at proficiency in clinical care, and suggested plans for rheumatism educational programs for the general practitioner, to be carried out by chapters in cooperation with state and county medical societies.

The committee also will be charged with the responsibility of determining whether or not other chapter activities are sound from the medical standpoint and in keeping with the policies of the Foundation.

Members of the committee are:

Dr. Guy A. Caldwell, New Orleans, professor of clinical orthopedics, Tulane University of Louisiana School of Medicine; Dr. Russell L. Cecil, New Ydrk, professor of clinical medicine Cornell University Medical College; Dr. Robley D. Evans, Boston, professor of physics, Massachusetts Institute of Technology; Dr. Morris Fishbein, Chicago, editor, The Journal of the American Medical Association; Dr. Philip S. Hench, Rochester, Minnesota, professor of medicine (Mayo Foundation), University of Minnesota Medical School; Dr. Andrew C. Ivy, Chicago, vice-president in charge of the Chicago Professional Colleges, University of Illinois; Dr. Karl F. Meyer, San Francisco, director, the Hooper Foundation, University of California; Dr. Currier McEwen, dean, New York University College of Medicine, New York; Dr. Walter W. Palmer, New York, director, William Hallock Park Laboratories, Public Health Research Institute of the City of New York, Inc.; and Dr. Howard A. Rusk, New York, professor of rehabilitation, New York University College of Medicine.

Dr. Holbrook stated that "A meeting of the committee is expected to be held after the fall campaign in November, at which time a chairman will be elected and possibly two or three additional members selected.

"Among the main objectives of the Foundation, which has been incorporated under the laws of the State of New York, and which has its national headquarters in New York City," Dr. Holbrook explained, "are the making of a nation-wide survey of what can and should be done to combat the problem of arthritis; arousing the public and the medical profession to the need for action in this field, and the financing of a program which will include the development, with the aid of the National Research Council, of a nation-wide research program.

"It is also planned to establish fellowships designed to increase the number of able men qualified to conduct research and specialize in the treatment of arthritis and other rheumatic diseases, and to develop key centers throughout the country devoted to research, teaching and treatment, coordinated with medical schools."

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Skeleton In The Lock Box

EUGENE F. TOMPANE

(Any resemblance between the characters in this tale and real persons living or dead is deliberate and with malice aforethought. The incidents are true and but thinly disguised.)

"Personal call for you, Doctor."

As Dr. Smith reached for the phone his elbow struck a novelty plastic skeleton hanging on the wall, causing it to rattle realistically.

"This is Henry Jones. I am acting as administrator for my father's estate and I find 500 shares of 'Contaminated Finance Corporation' among his papers. I see that your signature is on the certificate as vice-president. Can you tell me if it has any current value?"

Dr. Smith explained patiently that the company was no longer in existence, that there had been nothing left for stockholders, and that he himself had lost heavily in the collapse of the company after the promoter of it had absconded with part of the funds.

As he hung up, he glared at the toy.

"You're not the only skeleton around here," he mused ruefully. "I have a few financial ones in my lock box that seem to rattle every once in a while."

"After completing my study and internship and establishing a practice, I can plan on 20 good years of earning power at most to justify and compensate me for that time, effort and money spent in preparation. During that period I am so busy and preoccupied that I lose a fair portion of my earnings through well-meant, but ill-advised financial ventures."

* * * *

"Oh, John, a most charming man was in to see you today while you were at the hospital. He's very smart, too. He knows all about doctor's investment problems, how you're so preoccupied with your professional duties that you don't have time to properly supervise your investments, and all. His company has a wonderful new plan just especially designed for professional men so that they don't have to worry any more. You just pay so much a month and when you're ready to retire, you get ever so much money each week."

Doctor Brown gazed sadly at his loving and well-meaning wife.

"You haven't forgotten what your brother told you about those things, have you? Selecting the good from the phoney is as difficult for us as it is for a layman to select a doctor. Hearsay and fanciful claims are about all the information available on that subject. If financial management were so simple, everyone would be living on his income from investments."

* * * *

Doctors Schmidt and McGill, very good friends of Harry Boyd, were invited to partake of refreshments at Harry's very comfortable home and during the evening Harry told them about a company he was forming, the Red Bird Cement Corporation. Naturally, Harry would let his friends in on the deal on the same basis he himself was going in—(common stock.) [Unfortunately for the medical men, Harry's father was rather realistic and would not put any money in (on the grounds that he was retired), but would guarantee a mortgage loan.]

Two hours and three Manhattans later, Harry has $5,000 of hard-earned cash from both Dr. Schmidt and Dr. McGill and they are stockholders in a new venture of doubtful financial soundness.

Three years and two advances later, the doctors are out of the business and $25,000. Harry was more optimistic than conditions warranted and a reorganization was required, naturally at the expense of the common stockholders. Father Boyd now owns the plant and son Harry operates it profitably on the basis of the reduced plant cost (due to receivership).

The beautiful cardinal etched on the face of the now worthless certificate looks more like a mocking gargoyle to Doctors Schmidt and McGill.

The experiences quoted above are not universal, but interviews indicate that such incidents are more common among medical men than is good for their financial health.

Several other impressions obtained in talking with doctors help to explain some of the financial indiscretions which send them scurrying for the benzidrene.

Many doctors have a real flair for business and gather experience and profits along the way, but they necessarily devote time to business at the expense of their practice.

Many doctors shy away from salesmen, self-

styled financial experts, or advisors; and properly so, since establishing the capacity or integrity of these would-be counsellors is not always easy.

Such avoidance does not solve his problem, however, for he can lose his money just as quickly on some small, obscure venture about which he knows all there is to know except how to make it profitable.

One's friends are often, unintentionally, the worst offenders, inducing financial indiscretions a stranger could never hope to promote. A good sportsman, fine golf or bridge player, entertaining dinner or drinking companion is not necessarily a sound financial analyst and advisor even though he makes his own living in the "INVESTMENT BUSINESS."

Neither is free spending nor apparent wealth surely indicative of financial acumen. The money might be inherited, or more probably, the earnings of a good salesman.

Most doctors believe, quite rightly, that the "sucker lists" are culled from telephone directories with emphasis on doctors, along with teachers, widows, etc., who have limited time available for study of the subject. They feel obligated to place in file "X" all literature and material, some of it quite competent and designed to be helpful. Hence, they rarely get any benefit via the correspondence route, or if so, they pay handsomely for it, especially if they are sold by some financial publishing organization on its ability to assure the doctor's financial future.

Medical men, though thoroughly familiar with the trend toward intensive specialization in their own profession, often are unaware that the "investment business" is perhaps even more highly specialized. The difference between salesmen, customer's representative, customer's broker, and associate are often slight and in essence the relationship is usually that of salesman and prospect.

Hence, the fact that a man is engaged in the securities business is not necessarily sufficient to qualify him to advise on investments any more than an M. D. Degree necessarily qualifies a man to perform a jugular section.

A professional man wisely seeks a competent professional investment firm, whose ethics, sincerity and competence match his own and whose market and research facilities are designedly complete and authoritative.

Such a firm does not indulge in flambouyant advertising promising you financial security on the installment plan or talk glowingly of fabulous profits from romantic sounding business ventures, but is very prosaic and objective in approach and will advise against ten investments for every one approved or recommended.

Such a firm will seek to provide you with the greatest value for your investment dollar, keep you up to date on developments and constantly endeavor to put you in a protected or secured position. Ask how this can be done.

The intimate knowledge of your affairs and the responsibility imposed will cause such an investment firm to become one of your closest and most dependable friends.

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Office of the Surgeon General

MENINGITIS LOSING ITS STING, ARMY REPORTS

Spinal meningitis, terror of World War 1 training camps, has today lost much of its menace, according to a report by Dr. Worth B. Daniels submitted through the Office of The Surgeon General of the Army, and published in the Archives of Internal Medicine.

The report points out that less than three per cent died of some 14,500 soldiers treated during the World War II period for this once almost hopeless infection. The remarkably low death rate was due, Dr. Daniels said, both to the efficacy of sulfadiazine and penicillin in controlling the infection and to quicker diagnosis. Early diagnosis and the prompt use of the drugs can usually stop the spread of the bacteria before they have a chance to become localized in the linings of spinal cord and brain.

Altogether there were about 300 deaths from meningococcic infection in World War II. Approximately ten per cent of these died before the germ had become localized in the nervous system tissues.

The war experience, Dr. Daniels says, shows that sulfadiazine is the best available drug. It is not as effective as penicillin against the bacteria in the blood stream but the latter drug proved to have one great disadvantage. While penicillin circulates through the blood stream freely, it does not get into the cerebro-spinal fluid in predictable quantities and hence cannot be relied upon to prevent invasion of brain and spinal cord tissues. Sulfadiazine enters the spinal fluid rapidly in high concentrations.

ANNOUNCEMENT OF VAN METER PRIZE AWARD

The American Goiter Association again offers the Van Meter Prize Award of Three Hundred Dollars and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The Award will be made at the annual meeting of the Association which will be held in Madison, Wisconsin, May 26th, 27th and 28th, 1949, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations; should not exceed three thousand words in length; must be presented in English; and a typewritten double spaced copy sent to the Corresponding Secretary, Dr. T. C. Davison, 207 Doctors Building, Atlanta 3, Georgia, not later than March 15th, 1949. The committee, who will review the manuscripts is composed of men well qualified to judge the merits of the competing essays.

A place will be reserved on the program of the annual meeting for presentation of the Prize Award Essay by the author if it is possible for him to attend. The essay will be published in the annual Proceedings of the Association. This will not prevent its further publication, however, in any Journal selected by the author.

SPECIAL MEETING - GASTRIC CANCER

"Gastric Cancer" is to be the subject under discussion at a special dinner meeting to be held on December 13, at the Fairmont Hotel, at 6:30 p. m. All members of the medical profession are welcome to attend this meeting. The theme of the meeting is "New Horizons in Gastric Cancer." The speakers are:

Dr. John A. Morton, Professor of Surgery, University of Rochester
Rochester, New York.
"New Horizons in Gastric Cancer."

Dr. George W. Papanicolaou, Professor of Clinical Anatomy, Cornell University, New York, New York.
"Exfoliative Cytology as Applied to Gastric Cancer."

Dr. Leo Rigler, Professor of Radiology, University of Minnesota, Minneapolis, Minn.
"Radiology in the Gastric Cancer Problem."

The meeting is being held in conjunction with a conference of the group of research workers engaged in the general problem of gastric cancer under the Gastric Cancer Committee of the National Advisory Cancer Council (United States Public Health Service). The Gastric Cancer Committee is holding a two-day session in San Francisco, but the dinner meeting is the only one of general interest to the practicing physician.

Reservations for the dinner can be made by sending a check for the cost of the dinner ($5.50) to:

Dr. Ralph T. Behling
Cancer Control Officer, District No. 5
United States Public Health Service
237 Federal Office Building
San Francisco, California.

The meeting is sponsored by some of the county medical societies in the San Francisco Bay Area in conjunction with the Gastric Cancer Committee.

Our Friends Should Not Be Forgotten

Members of the Maricopa Medical Society and their wives were the guests of members of the Maricopa County Pharmaceutical Association and their wives at a dinner dance in the Fiesta Room of the Westward Ho Hotel, October 22, 1948. Those who attended will always remember its beauty, the cuisine, and the music, but most of all the genuine good fellowship. Although merriment abounded, it was not the salient feature, the association was paramount.

Prior to this meeting its purpose was stated by C. E. Heacock, President of the Maricopa County Pharmaceutical Association: "We of the pharmaceutical profession have often discussed the advantages to be reaped from a closer understanding with the members of other professional groups. The opportunity presents itself now and we hope both the physician and pharmacist will take advantage of this meeting to better learn what the other fellow is like. Mutual problems have existed since time immemorial and satisfactory solutions are achieved through mutual understanding."

H. D. Ketcherside, M. D., president of the Maricopa County Medical Society remarked: "The increasing progress in both medicine and pharmacy make it not only desirable but imperative, that we have the greatest cooperation between the pharmacists and physicians. Therefore, we greatly appreciate this opportunity to become better acquainted with the pharmacists in our community and the opportunity to discuss our mutual problems."

The necessity of cooperation and mutual understanding between allied groups has been recognized throughout history, but it remained for our friends, the Pharmacists, to remind us of this fundamental fact. We should be and are duly embarrassed.

Our hats are off to the Pharmacists. Now with our vision widened we should foster this association and recommend that other medical societies take steps to form an alliance with their pharmacist friends.

This meeting has prompted us to ask this question: Have we of the medical profession

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been guilty of failure to properly discuss our problems with our friends in the allied professions and with other friendly groups? Our efforts to stop the undesired contemplated social changes, as they are related to the best medical care, should start with our neighbors, our friends, and the peoples of our local communities. To help us do this we should seek a complete understanding with all the groups which are interested in any phase of health so that we may be assured of their concerted cooperation.

OUR FRIENDS SHOULD NOT BE FORGOTTEN.

℞

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OCTOBER 22, 1948

Cocktails **7:00 P. M. in Parlor B**

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NAME: A DRUGGIST.
DISEASE: POOR CIRCULATION.

℞ Spiritus Frumenti, Cyath 1.
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cum Aqua Pura et Carbonatus.

Signa.
Ad Libitum ante Cibus.

DR. CHEER

Et No. 2.

SAME PATIENT.
DISEASE: MAL NUTRITION.

℞ Canceres Paguri Recentes—Supremi
Corda Apii Olivae Variatae
Pectus Meleagridis Supremum Coctura Salviae
Condimentum Baccarum Rubrarum
Solana Tuberosa Concisa
Cucurbita Hubbardensis Tosta
Mistura Saladis Arizonensis
Coctura Waylandensis
Placentae Genus Aqua Coctum Et
Frigore Concretum
Secundum Gustum Westward Ho
Condimentum Vanillum Imbutum Siscera E
Saccharo Decocta Distillatione Facta
Libum Percolata Caffea Javensis

A. A. Quantum Libet

SIGNA.
PARTITIS VICIBUS.

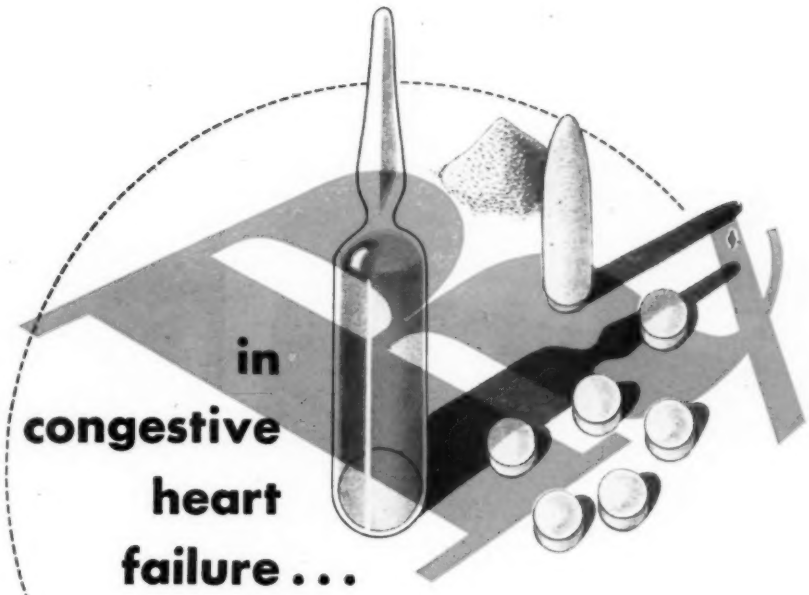
DR. CHEER

Et. No. 3.

℞ Prescription No. 1 may be refilled as often as necessary, as is, or with changes to suit taste. Prices upon application.

Et No. 4.

℞ To be taken Morning of October 23rd. (This is written in plain English so that you will make NO MISTAKES.)
Gran. Sodii Phosphas Effervescens Oz. I.
Aqua Pura Q.S. Ad. Oz. IV.
Sig: — Take at once.



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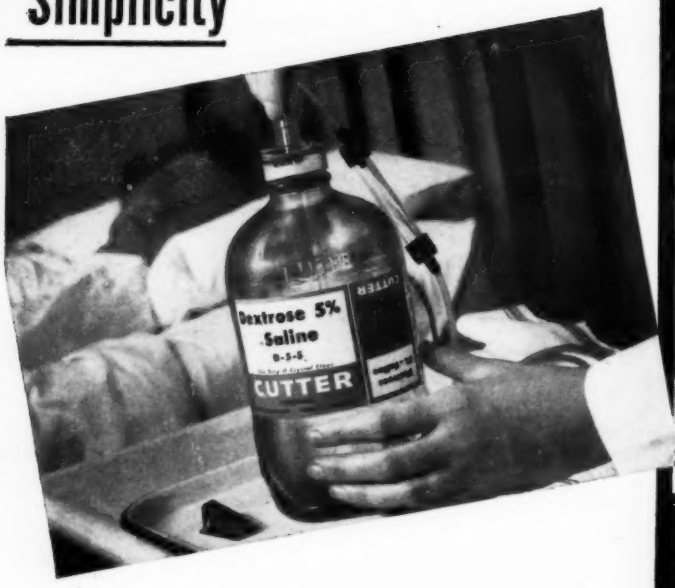

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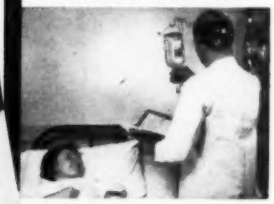

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Editorials

National Diabetes Week

National Diabetes Week will be celebrated December 6 to December 12, 1948. The American Diabetes Association is sponsoring this week in the United States and Canada for the purposes of 1. finding the million unknown diabetics, and 2. to guide these as well as the many forgotten diabetics to their physicians for effective treatment. It is estimated that there are one million diabetics walking our streets who are totally unaware that they have diabetes. It is hoped that through the co-operative efforts of the physicians and lay organizations, during this National Diabetes Week, many of these unknown diabetics will be discovered so that they may benefit by proper treatment.

Doctor Charles H. Best, co-discoverer of insulin, in a letter to the members of the American Diabetes Association relative to the National Diabetes Week, states, "Our slogan describes our main objective: '*Find the million unknown diabetics in the United States and Canada.*' We all know that the diabetic is benefited by early treatment, and we can do a great work by putting our very best effort into this endeavor."

The American Diabetes Association, although a relatively young organization, is doing a grand work in fostering the advancement of knowledge about diabetes, its detection and its treatment. This organization has recently started the publication of a monthly magazine which is written for the lay diabetic which contains articles and information compiled by laymen and physicians to aid the diabetic in the care of his disease. This magazine contains many articles which will be educational to physicians as well. Information regarding this journal may be obtained from the "A D A Forecast," American Diabetes Association, 1 Nevins Street, Brooklyn 17, New York, N. Y. This association is also sponsoring the organization of Diabetic Associations throughout the United States. The societies are composed of lay and physician members for the purpose of disseminating knowledge about diabetes which will improve the treatment of this disease.

Diabetes has been somewhat neglected by physicians and it is hoped that we will all do something to give this disease, and those who have it, proper recognition. It is also hoped that many of you will co-operate in this first National Diabetes Week. Specific information may be obtained, upon request, from Howard F. Root, M. D., 81 Bay State Road, Boston, Massachusetts.

There are as many diabetics per capita here in Arizona as there are in any region in the world, however, there are more undiscovered diabetics here whose disease smolders on untreated. We should enter into Diabetes Week and improve the Diabetic's chances for a longer and happier life in Arizona.

The Use of Streptomycin In Tuberculosis

A Report by the Committee on Chemotherapy and Antibiotics of the American College of Chest Physicians, September 23, 1948.

The Committee on Chemotherapy and Antibiotics of the American College of Chest Physicians submits the following report of the use of streptomycin in tuberculosis:

Indications for Treatment:

Nearly all forms of tuberculosis respond to treatment with streptomycin in some degree. However, the drug should by no means be used indiscriminately.

Pulmonary Tuberculosis: It is extremely difficult to lay down hard and fast rules for the use of streptomycin in pulmonary tuberculosis.

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JOSEPH G. RICE, PRESIDENT

Especial care in the selection of cases is necessary. The drug has its greatest usefulness in cases with an appreciable amount of exudative disease. In some other cases streptomycin is responsible for symptomatic improvement and the prevention of complications.

1. Definitive treatment: This category includes chiefly progressive lesions of recent origin with little or no destruction of tissue, such as progressive primary tuberculosis and tuberculosis due to hematogenic and bronchiogenic dissemination.

2. Preparation for surgical procedures, including temporary and permanent collapse and excisional surgery. In some cases pneumothorax can be instituted sooner and with greater safety after a course of streptomycin. Not infrequently the drug is of great value in preparing patients as candidates for thoracoplasty. As prophylaxis, streptomycin should be used routinely in excisional procedures.

It must be emphasized again and again that streptomycin is *not* a substitute for sanatorium care and other proven procedures. Rather it is a valuable adjunct to these other measures.

Extrapulmonary tuberculosis: Streptomycin is the only treatment available in miliary tuberculosis and tuberculous meningitis. In such cases early and intensive treatment is imperative. Streptomycin is the treatment of choice for tuberculous sinuses, tuberculosis of the oropharynx, larynx and tracheobronchial tree, tuberculous enteritis and peritonitis, tuberculous otitis media, and tuberculous pericarditis. In renal tuberculosis, symptomatic improvement is usually prolonged and bacterial conversion occurs in some cases. Tuberculosis of the bones and joints is often improved by streptomycin but chemotherapy is not a substitute for orthopedic surgery when this is indicated.

Streptomycin is valuable as pre-operative and post-operative treatment of tuberculosis in surgery of the genito-urinary tract, surgery of bones and joints, pericardiolysis, incision and drainage of abscesses and fistuectomy.

Administration:

Streptomycin is administered by intramuscular or deep subcutaneous injection. The optimal regimen for the administration of streptomycin has not been determined. In most forms of tuberculosis results appear to be satisfactory when a dose of .5 to 1 gram a day are administered in one or two injections for six to eight weeks. With this mode of therapy complications are very infrequent and in most cases their clinical importance may be discounted. In tuberculous meningitis and miliary tuberculosis treatment should be vigorous; a dose as high as two grams per day for four months, or longer if necessary. In tuberculous meningitis results seemingly are better when intramuscular injection is supplemented by intrathecal injection of from 25 to 50 milligrams every twenty-four to forty-eight hours for two or three months, or as long as this method of administration is tolerated by the patient.

Since drug fastness is apparently closely related to duration of treatment, regardless of the daily dosage, limitation of the period to a few weeks may be effective in avoiding this phenomenon in many cases.

The physician handling a case of tuberculosis would do well to ask himself the following questions before administering streptomycin.

1. Why is streptomycin being used: for definitive therapy, as preparation for surgery, for prophylaxis, or for relief of distressing symptoms?

2. Is the type of lesion present of such a nature as to warrant the use of streptomycin in addition to other available therapy?

3. Can the purpose of chemotherapy be accomplished within the relatively short period of the drug's effectiveness? (Almost three-fourths of the patients show resistant organisms after three to four months of continuous daily streptomycin treatment.)

Other Chemical and Antibiotic Substances

There is no other substance known today which compares with streptomycin in its effectiveness against tuberculosis. The sulfones, promin and promizole, are generally ineffective alone. Experimental work is in process to determine whether or not there is synergistic action when any of these are added to streptomycin. Para-aminosalicylic acid is promising on the basis of laboratory experimentation but sufficient clinical work has not yet been done to permit evaluation of this drug. Subtilin has not had sufficient clinical trial and there is not yet enough animal experimentation to indicate its usefulness. Of the many other antibiotic substances, none has shown in preliminary experimentation indication of real value against tuberculosis and none has had clinical trial.

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ARTHRITIS AND RHEUMATISM FOUNDATION

Elsewhere in this issue appears an announcement of the completion of negotiations which have been going on for some time toward consolidating into a single organization the leading agencies in the attack on rheumatic conditions, including the American Rheumatism Association, the National Arthritis Research Foundation, the Detroit Fund for Crippling Diseases and other groups that have been devoted to combating arthritis. As will be observed, the board of directors of the new Foundation thus far selected represent leaders in industry, philanthropy and medical science whose names carry confidence.

The Foundation is organized along the lines of similar groups such as the National Foundation for Infantile Paralysis, the American Cancer Society and the American Heart Association, and it proposes to function in a similar manner. Its objectives include surveys of the problem, graduate education of the medical profession, education of the public, research, fellowship and improved care for those with rheumatic diseases. Complete cooperation with the medical profession through county and state medical societies indicates recognition of the importance of medical cooperation in achieving the ends that are sought. The objectives indicated, the persons interested and the approach to the problem merit the support of the medical profession and the public.

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By GUILLERMO OSLER, M. D.

The hottest news which has turned up this month is a progress report on CHLOROMYCETIN, an antibiotic obtained from a Peruvian soil fungus. ARIZONA MEDICINE for July contained a preliminary report of its effective use in 25 cases of "scrub" typhus (tsutsugamushi fever); newspapers in August told of its apparent value in a few cases of typhoid fever which had been misdiagnosed typhus. . . . Correspondence with Col. Rufus L. Holt, Medical Corps, Army Medical Center has provided the following tremendous facts,—Although experience is scanty, chloromycetin also seems SPECIFIC FOR MURINE AND EPIDEMIC TYPHUS (the ancient scourge of armies, the poor, jails, and institutions) . . . Enough cases have now been treated to be sure that it will also CURE TYPHOID FEVER any time during the first 17 days of the febrile stage. Organisms are killed outright, in an average of 3.6 days, and relapses do not occur. Mechanical complications such as perforation and hemorrhage are not prevented . . . The dosage is not fixed, at present; the drug has a very low toxicity at effective levels; it is manufactured only by Parke, Davis and Co., Detroit; it is not commercially available in the west, but may be obtained by application for clinical research use.

When the rising cost of almost everything one can think of comes to mind, THE FALLING COST OF OUR "MIRACLE DRUGS" is like a cool drink on a hot day . . . Penicillin cost $9.00 per 100,000 unit ampoule in 1943, $2.25 in 1946, and 50 cents now. Streptomycin cost $12.00 per gram in 1946, $2.67 now. Sulfadiazine cost $15.00 per 100 tablets in 1942, $6.00 in 1946, $3.10 now. Retail. Still falling. Miracle drugs in more ways than one.

Dr. Harold Fink, who carried the Pima County General Hospital on his back for 18 months during the last part of the war, and then disappeared into the silence of Florida, has been located. He came to Tucson by way of Yale, Johns Hopkins and Duke, and did a great job for the overworked Tucson doctors. He has rested since 1946, given up surgery, and is working in medicine at the Tufts Post-Graduate School in Boston.

Three years ago PENICILLIN AEROSOL was given by means of a nebulizer and compressed oxygen. A year or so ago, for those able to pump it, the aerosol was given by means of a nebulizer and rubber bulb . . . Now we have evidence that finely-powdered penicillin (in the form of cartriges) may be inhaled into the nose or mouth through a device called the Aerohaler (Abbott Labr.). The drug is tolerated and effective, and the method requires control but no effort.

It wasn't to be expected that every idea for this Column would be virginally new, nor, on the other hand, that it be as much in print as The-Baby-With-the-Bladder-Outside . . . However, nine of Guillermo's ideas have turned up in various publications in the past two months before they could be used, and we must give a nod of priority for the next subject to a usually non-medical journal—Arizona Highways.

SALSBURY OF GANADO! It has the ring of an ancient English title and, even in these days, might deservedly be found on an honors' list . . . Briefly (and it is very difficult to brief) Dr. Clarence Salsbury is a medical missionary; he runs the only volunatry-type hospital in an area of 26,000 square miles, 100 by 260 miles in diameter; the hospital serves 60,000 people, mostly Navajos; there are no private physicians or dentists in the area . . . The Ganado Mission was founded by the Presbyterian Church 47 years ago; Dr. Salsbury arrived in 1927, after serving at a mission in Hainan, China; the Sage Memorial Hospital was erected in 1930, consists of 150 beds and 15 bassinettes, is accredited by the A.M.A. and A.C.S., and has a nurses' training-school for Indian girls . . . He does all sorts of medicine, surgery, and even dentistry; he has educated the Indians to medicine, and has the confidence of the medicine-man; he has published the report of his experiences in ARIZONA MEDICINE; and he conducts the Harlow Brooks Memorial Navajo Clinical Conference each year (1948 was the ninth), with more than 20 guest speakers from West Coast, Rocky Mountain, and Mid-Western cities . . . What can an ordinary physician say in praise?

Do the doctors of Tucson remember certain large and blatant newspaper "ads," from which they used to cringe? A big machine, with wonderful dials and knobs, which made all sorts of fabulous diagnoses for a non-medical clinic? . . . The "ads" are gone, the machine is gone, and the manipulator is gone! The clinic remains, but the proprietor cautiously says that the machine "is no longer considered of value." The progress of science is indeed remarkable!

This compliment is aimed directly at ARIZONA MEDICINE. Dr. Osler has been inspecting quite a few state and regional medical journals; each of them has one or two unique or clever features . . . However, for an appearance and format and print-job which purely shines, the medical journal of Arizona is outstanding . . . Quite a few people are, and have been, responsible, but at least two deserve a kudo. In order to get this paragraph published, they will have to be called Dr. Milloy Smith and Mr. McMeekin Jones. Viva!

What is the hazard to humans of the hovering FOOT-AND-MOUTH-DISEASE, "aftosa?" Mr. Hugh McPhee, Chief of the U. S. Bureau of Animal Industry, says that it is scant. The disease rarely occurs in man, who is considered to be very resistant, and who usually recovers if infected. There is no evidence that it can be transmitted between humans . . . The virus is immunologically classed as "A," "O," and "C" (or in another nomenclature "B," "A," and "C.") Only virus "A" has been identified in Mexico . . . A vaccine has been in recent use, partly because it has a prophylactic value and partly because of the objections to slaughter. It consists of an aluminum-hydroxide-absorbed virus, inactivated by formalin. It is expensive and difficult to make, and produces a brief immunity. It is used only in animals . . . The current program consists of inspection, vaccination, quarantine, and slaughter, and the huge epidemic shows some signs of response and limitation.

BARBITURATES are a common means of suicide; barbiturates may be legally obtained only by precipitation; only Doctors of Medicine may write prescriptions . . . It is a tough responsi-

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bility, but physicians hold part of the answer to suicides. The most careful attitude would seem to include the writing of prescriptions only for need, limitation of the amount of drug prescribed, knowing the patient, restudying the list of neurotic and psychopathic conditions which tend toward suicide—AND being sure of the modern therapy for overdosage of barbiturates.

The disreputable KOCH TREATMENT ("cancer cure") is again causing a hue and cry, this time as a treatment for almost everything which can happen to cattle. The base of operations is now in Michigan, and the scope extends into Canada. . . . How has Koch again gotten into the public eye? It is almost incredible, — a group called the Lutheran Research Society printed a maudlin article of defense and praise; the egregious Senator Langer had it reprinted in the Congressional record in June, 1948; and it was then "franked" out to an unknown number of people, including many physicians! . . . The J.A.M.A. and others have immediately swatted it, but don't think It Can't Happen Here! As recently as 1944 it was being used as a treatment for cancer in an Arizona city, and a couple of "shots" were even given to a cancer patient's child to prevent the DEVELOPMENT of cancer!

Someone has had the courage to see and report the sad, sordid distortion which prison life produces on the sexual pattern of most individuals (Editorial, J.A.M.A., Sept. 25, 1948). . . . Perhaps someone will now pay some attention to the effects of isolation on patients in sanatoria and hospitals. Not strictly comparable, but quite similar. The subject has been ignored because it's hard to approach, it Isn't Nice, and so far, unfortunately, there is no solution.

The statistics on this year's POLIOMYELITIS can be found elsewhere. There were several notable features of the recent "trouble," however. The communities took a practical attitude toward the needs resulting from the epidemic, which in turn encouraged a practical attitude and a lack of phobia on the part of the public. . . . Good facilities were allocated for care of cases in the city hospitals; money was made available; the status of the epidemic seemed to be known at all times (though there was a lag in reporting, as usual). . . . All these things occurred in spite of the vagueness about communicability and the absence of specific therapy.

New CHEMOTHERAPY FOR CERTAIN VIRUS INFECTIONS, so new that it is only reported in newspapers and periodicals, is "Darvisul" (phenosulfazole). . . . It is a sulfonamide prepared by the Calco Chemical Co. for Lederle Laboratories, its sister-company in the American Cyanamid group. . . . The drug was found in a mass-survey of all available materials which might affect equine encephalomyelitis in mice—an arduous, Ehrlich-like, gigantic search. It was shown to be effective in this acute virus "test" disease, and then shown to inhibit POLIOMYELITIS IN MICE. . . . This summer it was said to have a considerable effect in clearing the symptoms and spinal fluid in HUMANS WITH POLIO, and in stopping or preventing paralysis in early cases. . . . Dr. Y. Subba Row directed the experimental work at Lederle's, and the first 100 cases of polio were those of Dr. Paul Harrington of Houston, Texas. . . . Darvisul is said to have a low toxicity; to be excreted rapidly, and hence to require IV administration; to be effective prophylactically; and to perhaps form the basis of attack on other virus diseases. Con-

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Of ARIZONA MEDICINE, published bi-monthly at Phoenix, Arizona Post Office for October 1, 1948.

STATE OF ARIZONA, } ss.
County of Maricopa, }

Before me, a Notary in and for the State and county aforesaid, personally appeared J. N. McMeekin, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the Arizona Medicine Journal, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily, weekly, semi-weekly or tri-weekly newspaper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the act of August 24, 1912, as amended by the acts of March 3, 1933, and July 2, 1946 (section 537, Postal Laws and Regulations), printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

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Editor—Frank J. Milloy, M. D., 418 Heard Bldg., Phoenix

Business manager—J. N. McMeekin, 418 Heard Bldg., Phoenix

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)—

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5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is 1500.

J. N. McMeekin, Business Manager.

Sworn to and subscribed before me this 1st day of October, 1948.

(SEAL) ONA LEE McLEEN.
Notary Public

(My commission expires July 18, 1952.)

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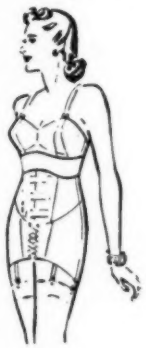

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Book Reviews

CANCER MANUEL, The Cancer Committee Iowa State Medical Society, 1948.

This one hundred sixty page manuel prepared by the Iowa State Medical Society presents in brief outline form the essential facts of etiology, symptomatology, physical manifestations, differential diagnosis incidence, treatment and prognosis of the various cancerous conditions met with in the body. It is a concise summary for the general practitioner who is most often the first to see the cancer patient. It serves a useful purpose to keep the suspicion of cancer in the doctor's mind, and thus bring more cancers to early and successful treatment. It outlines the accepted treatments to be employed without prejudice. It is a highly recommended reference for the busy practitioner. —R. L. F.

"YOU AND YOUR DOCTOR." by Benjamin F. Miller, M. D Price $2.75. Pp. 183. New York, Toronto. McGraw-Hill Book Company, Inc.

"A frank discussion of group medical practice and other modern trends in American medicine."

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In the first of the 16 chapters he impresses upon the reader that each of our 120000 general practitioners is one who, with some misgivings and prayer on his part, daily performs two tonsillectomies, a herniorrhaphy, a cholecystectomy, a thyroidectomy, a breach delivery, makes something over ten house calls, administers to a crowded office full of patients in the afternoon and again after dinner, and who, besides answering numerous phone calls, arrives home late in the evening for a game of bridge.

In the second chapter he discusses the general practitioner's dilemma. He states that the general practitioner lacks adequate professional training to perform his assignments, which often spells tragedy for the patients. To acquire even the minimum knowledge necessary to cover his field the general practitioner would have to have at least 17 years of internship after graduation from medical school. Under the caption "Signs and Symptoms," Dr. Miller recites several isolated cases to show the errors which are being made by general practitioners. He also has a word about the narrowness of the too highly specialized specialist.

It is proposed that the general practitioner be replaced by a "Pilot Physician." This pilot physician should be one whose graduate training shall consist of a general internship, one year of internal medicine, and one year of psychosomatic medicine and psychiatry. He believes that the cost of this training would not be excessive if, through the government, adequate salaries were provided. The duties of this pilot physician would be to leisurely take detailed histories and examine the patients, have adequate, necessary laboratory tests performed in order to establish the branch of specialized medicine into which the illness falls. The pilot would then treat those patients whose illness were simple enough for his qualifications and to send all others to the proper specialist.

A full chapter is devoted to the merits and the superiority of group practice. It is maintained that group practice has continued to grow and that the most fervent propaganda against this type of practice has not been able to stop it. It is the author's opinion that the patients develop a double emotional attachment to a group of doctors. The patient, besides the usual doctor-patient relationship, develops an attachment to the skills of the associated physicians upon whom he can rely for help—should his case ever require their particular specialized services. Under group practice the patient is assured that he will be referred without delay to the proper specialist. These features he believes offset and actually substitute for the "intimate patient-doctor relationship." The group system offers more opportunities for doctors to take needed vacations, and rest, and gives them the time necessary to further their education.

It is proposed that well balanced groups of specialists be strategically placed throughout the country in such manner that there will not be over 400 miles between any group. According to the author we are a sufficiently rich and ingenious nation to work out some satisfactory method of paying all these doctors. We are

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reminded that most of the physicians from the present successful unassailable groups are now on salaries.

The values of preventive medicine and its application are discussed, pointing out that organization and central direction are essential for its proper development. Dr. Miller's intent is again exemplified by his notation that the private practitioner has done very little, or nothing, in the tremendous gains achieved in preventive medicine, but that actually he has at times been an obstructionist.

It is a part of the author's goal to provide "Freedom from Emotional Illness," by providing sufficient trained doctors to care for the ten million people who are in need of psychiatric care. He advocates frequent periodic medical checkups for all.

The chapter devoted to "The Post Mortem" should convince the lay reader as to the necessity of doing autopsies. In the next chapter he discusses the need for large scale research to cover all diseases, this research to be financed by its beneficiaries—the people. He advocates that the Federal Government should finance individuals who cannot afford to establish themselves in a new locale where the climate would improve their health.

Dr. Miller believes that a national health program is in the making, which must provide vigorous and intelligent leadership. This national plan is to embody preventive medicine, clinical or curative medicine, and medical research. It is postulated that such a national health plan would be no more socialistic than other established institutions such as the Mail Service or our educational system. He fails to discuss whether or not our present educational system is a success or a failure. He states that the evolution of free public education in this country provides a forecast of future medical care, without mentioning that at the present time, on the whole our schools are staffed by under-paid individuals whose qualifications and training are far from that which can accomplish the desired results. It is granted that we do offer this education to all peoples. I question whether the quality of medicine offered to all peoples should drop to the level which some leading educators say our education has reached, and question if the sacrifice in the quality would not be too great to be compensated by the increase in coverage.

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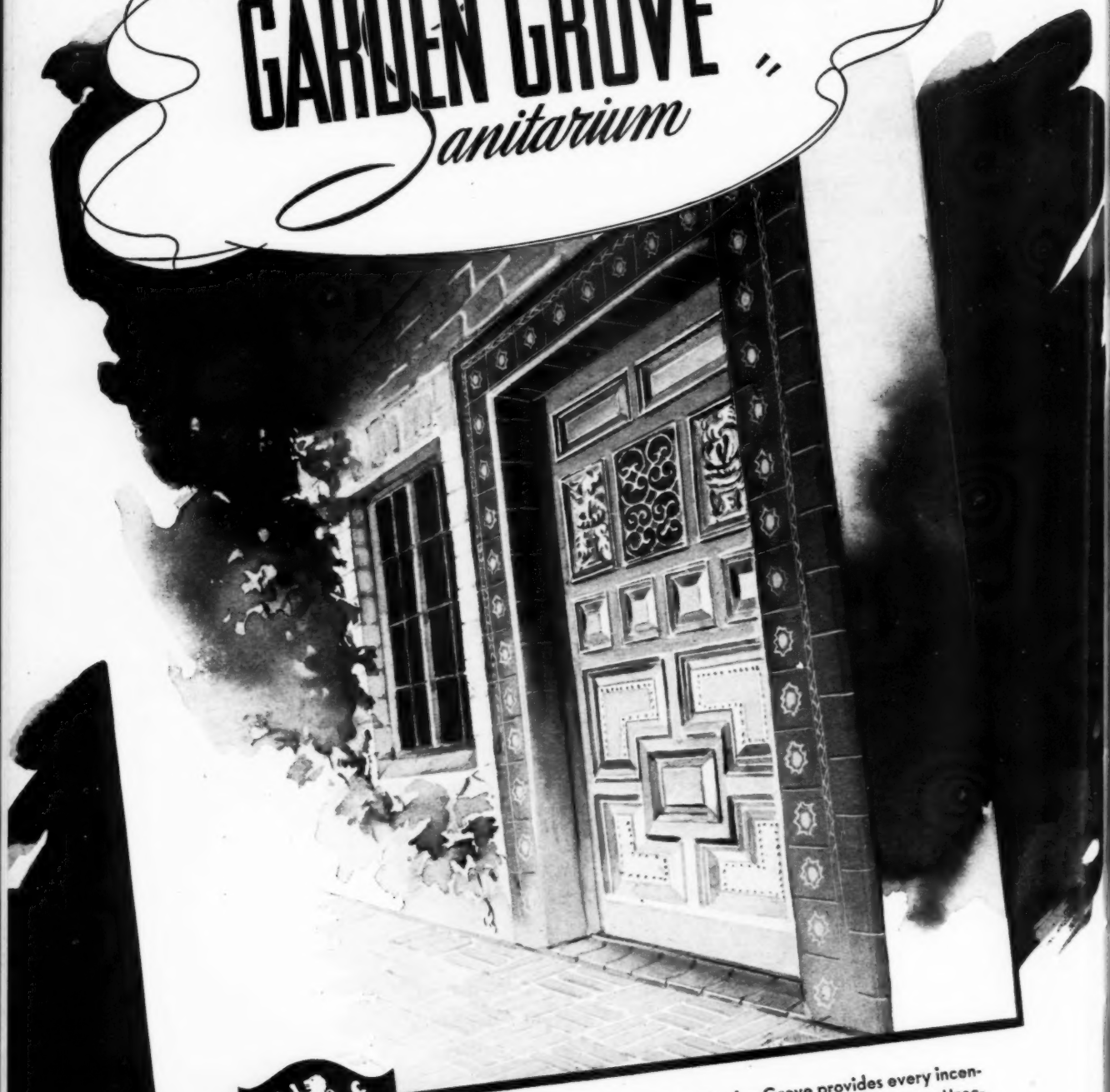

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This book is a potent piece of propaganda for socialized medicine which will, due to the manner of presentation, have a great appeal to all who read it. It will be thought-provoking to all physicians who read it; hence, it should be studied by all members of the medical profession.

HANDBOOK OF ORTHOPAEDIC SURGERY, by Alfred Rives Shands, Jr., B. A., M. D., Medical Director of the Alfred I. duPont Institute of the Nemours Foundation, Wilmington, Delaware; Visiting Professor of Orthopaedic Surgery, University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania—in Collaboration with Richard Beverly Raney, B. A., M. D., Associate in Orthopaedic Surgery, Duke University School of Medicine, Durham, North Carolina; Lecturer in Orthopaedic Surgery, University of North Carolina School of Medicine, Chapel Hill, North Carolina. Third Edition, cloth, priced $6.00. 574 pages with 158 illustrations, by the C. V. Mosby Company, St. Louis, in 1948.

Dr. Shands is one of the outstanding members of the Orthopaedic group today. He is well qualified to write a book on this subject, having published the First Edition—with the hope of assisting in the teaching of Orthopaedic surgery—ten years ago. As a clinician, teacher and investigator, he has been able to compile and consolidate material in an ever broadening specialty for an improved Second Edition in 1940 and, more recently, the Third Edition.

In this remarkable book of 574 pages, he has improved many illustrations and added others for a total of 158. Most of these are pen and ink drawings from photographs and x-rays and clearly illustrate the condition under discussion.

The subject matter is organized as to etiological factors involved. The anatomical divisions in these chapters are arranged in a logical manner, and each is discussed in sub-paragraphs. The subject matter is well composed, concisely written, and covers all common orthopaedic problems—and many of the more rare conditions. Unlike most textbooks, treatment of each of these orthopaedic problems is briefly but adequately covered.

The book is truly a "Handbook of Orthopaedic Surgery," being complete enough to serve as a handy reference for the Orthopaedic Surgeon; concise enough to quickly answer the questions that arise for the busy General Practitioner, and yet, simple and straightforward enough in the manner of presentation that the Student Nurse would have no difficulty in assimilating the subject matter.

Briefly, it is a remarkable book which adequately covers the Orthopaedic field. The bibliography is quite complete and serves as a ready reference for those who may wish to study a particular subject in greater detail.

—W. A. B.

THE BATTLE OF THE CONSCIENCE, by Edward Bergler, M. D. Price $3.75. Published May 4, 1948 by "Washington Institute of Medicine," Washington, D. C.

In the preface of this book the author says, "An old medical practitioner stated once that a hundred remedies for a specific disease, based on the same number of theories, were proof positive that ignorance and therapeutic helplessness were the real state of affairs. Applying that rule to the problem of the conscience . . . we must come to the conclusion that little is known about the working of the inner conscience." After reading this book this reviewer is convinced of the truth of that conclusion.

The book is a rather disconnected series of 16 papers previously published in various journals, and relating to feelings of guilt and conscience. There is much theorizing and many conclusions based on theoretical concepts. There is generous sprinkling of case illustrations, the majority of which seem to be somewhat parnographic accounts of bizarre and intimate events in the lives of predominately sexually aberrant individuals.

There is very little in the book of reference value, which may explain the absence of an index.

It is conceivable that this might be interesting reading to those who have a taste for this type of philosophical and psychological theorizing, but it is of no practical value to the average practitioner.

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MRS. E. HENRY RUNNING

Mrs. E. Henry Running was born in Whiting, Iowa. She attended Grinnell College at Grinnell, Iowa, and the Institute of Musical Art in New York City.

Mrs. Running is married to a Phoenix Pediatrician and has a daughter Susan, aged three.

Being active in the Red Cross. Home Service and Canteen for six years, she also worked through the Junior League of Phoenix for the past seven years, in Community Service work.

She has been active in both County and State Auxiliary since 1937.

The Woman's Auxiliary to the Maricopa County Medical Society, are starting their fall activities with a luncheon at the Hotel Westward Ho, on October 12th. The second social event will be a dinner dance held early in December, and the year will end with a May breakfast.

The year's program includes five regular evening meetings, held on the first Monday of each month.

Following our National Public Relations outline, we are having an "Open House" on the 19th of November, with Dr. Salsbury of Ganado as our guest speaker. As an Auxiliary we expect to give a bond as a prize in connection with the State Tuberculosis Essay Contest, to be held the last of November. The nurses scholarship loan fund which is to be started later in the year will also be one of our projects and a scholarship from our Auxiliary will be given.

Jana Running, *President*
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MRS. KARL S. HARRIS

Mrs. Karl S. Harris, the state treasurer, was born in Galesburg, Illinois and is an alumna of the University of Iowa. She did social service work in Illinois for four years.

In 1930 she married Dr. Karl S. Harris, who is now a Phoenix surgeon, and lived in Iowa City, Iowa before coming to Phoenix four years ago. She has two sons, Keith, who is a student at the University of Iowa and Jack, who attends Osborn Grade School.

Highlighting their first "Open House" Day and beginning what promises to become a pleasant annual custom, Dr. Clarence G. Salsbury, Director of the Navajo Mission and Hospital at Ganado will speak before the Woman's Auxiliary to the Maricopa County Medical Society and a distinguished gathering of invited guests. "Open House" Day is Friday, November 19, and it will be held at Heard Museum in Phoenix at two o'clock. Tea will be served at 3:30 and acceptances are requested from those receiving invitations.

The famed Dr. Salsbury, invitations to whose annual conference at Ganado are eagerly sought by doctors all over the country, is the "Mr. Big" of the Navajos and is a legendary figure. A native of Canada and the eldest of ten children of a farm family, he acquired his Doctor's Degree in 1913 from the Boston College of Physicians and Surgeons. He later interned at a New York hospital. He spent the following thirteen years as Superintendent and Surgeon of several hospitals in China and in 1927 came to Arizona

DR. CLARENCE G. SALSBURY

when the Presbyterian Board of National Missions sent him to the then desolate Ganado on "a temporary assignment." Through his efforts alone he has built a tremendous plant up there in the Navajo country, for its seventy buildings today are valued at $1,250,000.

During the past nine years Dr. Salsbury has conducted the Harlow Brooks Memorial Navajo Clinical Conference which is held annually at the Safe Memorial Hospital at Ganado. Famed physicians and surgeons from all over the country are happy to be included in the limited list of those invited to attend. There were five doctors from the Phoenix area included in this year's conference—the ninth.

Dr. Salsbury plans discussing the work of his beloved mission and hospital on "Open House" Day, and the afternoon promises to be a most fruitful one for all attending.

He will be introduced by the President of the State Auxiliary, Mrs. Thomas H. Bate, who likewise will present two other speakers: Dr. Marriner Merrill, Chairman of Health Activities Board; and Mr. Donald Lau who will speak on the Blue Shield and Blue Cross activities. Hostesses at tea are Mrs. Robert Cummings and Mrs. John Green of the Woman's Auxiliary of the Maricopa County Medical Society.

State officers of the Auxiliary are: President, Mrs. Thomas H. Bate; First Vice-President, Mrs. William Schuffman; Second Vice-President,

Mrs. A. J. Present; Secretary, Mrs. Henry Hough; Recording Secretary, Mrs. Robert Phillips, and Treasurer, Mrs. Karl Harris.

In charge of the first annual "Open House" Day are: Mrs. L. L. Tuveson, Phoenix; Mrs. Hervey Faris, Tucson, and Mrs. Carlos Craig, State Chairman.

President of the Maricopa County Woman's Auxiliary is Mrs. E. Henry Running and of the Pima County Woman's Auxiliary, Mrs. Harold Kohl.

NOTICE

This is to notify members and those eligible for membership in the Arizona Medical Auxiliary of an emergency which has arisen due to a revision passed at the June meeting of the Woman's Auxiliary to the A. M. A. The revision raised the National dues from twenty-five cents (.25) to one dollar ($1.00) per capita.

The State Board in session October 1, 1948 passed a like raise in State dues, making your current assessment two dollars ($2.00) as compared with one dollar ($1.00) last year. For members-at-large this amount covers, but the four organized counties will pay in addition whatever sum they deem necessary to carry their local group.

Submitted by

Ruth E. Schoffman
State Membership Chairman
and
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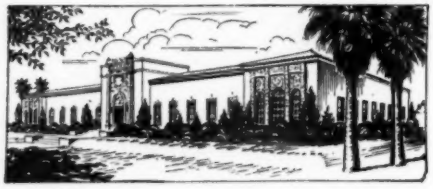

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ORGANIZATION MEETING OF THE WOMAN'S AUXILIARY TO MARICOPA COUNTY MEDICAL SOCIETY

About October 1, 1924, a self-appointed committee consisting of four doctors' wives: Mrs. W. A. Schwartz, Mrs. C. B. Palmer, Mrs. T. E. McCall and Mrs. F. G. Holmes met at the home of Mrs. F. G. Holmes and decided to call a meeting of all doctors' wives residing in Phoenix. A luncheon was served on October 10th to approximately thirty-two women in the Professional Women's Club. Here, by unanimous vote, a motion was carried to the effect that they organize an auxiliary for the purpose of becoming acquainted with one another and aiding the doctors in a social way. The officers unanimously elected were: Mrs. F. G. Holmes President; Mrs. C. B. Palmer, Vice-President, and Mrs. W. A. Schwartz, Secretary-Treasurer. As the organization was formed for social purposes mainly the minutes of that year read mostly of the good times had by the members.

In 1929, the State Auxiliary was organized with Mrs. O. H. Brown as the first President. The organization began to pattern itself from National, and responsibilities assumed were becoming greater, members assisting in legislative affairs and drives to raise funds such as, Red Cross, Community Chest, Welfare League and the sale of Christmas seals. In 1933, Mrs. Louis Baldwin recommended that members sponsor the furnishing and remodelling of an open air school.

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Maricopa County

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The first State board meeting was held at the Phoenix Country Club, Friday, Oct. 1, 1948, the State President Mrs. Thomas Bate, presiding. The program was supplemented by the reports of the chairmen and officers.

The mid-year board meeting will be held in Tucson, Friday, February 18th.

Respectfully submitted,
Mona Cohen,
State Publicity Chr.

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GILA COUNTY MEDICAL AUXILIARY
1947-1948

As a new unit, and a small one, with some of the members coming forty-five miles over rough mountain roads, we met only in conjunction with the county medical society, at the Globe-Miami Country Club.

These meetings are usually held throughout the fall and winter at intervals of from one to two months, in the form of dinner parties. The regular medical and auxiliary meetings follow.

Projects are simple in keeping with our size, and not overlooking the barrier of distance. This year's project is to raise money by individual enterprise, such as private bridge or bingo parties, to buy bed lamps for the Gila County Hospital.

Next year, when we are more experienced in auxiliary work, we hope to be more active, and to form a broader and more definite program.

Respectfully submitted,
RUTH AARNI (Mrs. John C.)

Mrs. John C. Aarni, President Gila County Medical Auxiliary.

Trained as a nurse in the Dallas City-County Hospital, Dallas, Texas, from September, 1933 to September, 1936.

Married John C. Aarni, a resident physician at the hospital in 1936. Received RN October, 1936.

Moved to Arizona in 1938, and except for a short interval during the war, has resided here since, living in Hayden, Tucson, Fort Huachuca, and in Ray.

Mother of two children, a daughter, eleven, and a son five, born while his father was overseas.

Writer of verse, most of which was published under maiden name of Ruth McClure. Aspires to the writing of fiction and articles, at which she has spent some time during this past year.

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Woman's Auxiliary

Report of the Twenty-fifth Annual Convention of the Woman's Auxiliary to the American Medical Association.

The vastness of the Woman's Auxiliary to the Medical Association and its work is felt when one attends a National Convention of the organization, such as the one held in Chicago, June 21-24. To meet its members and hear them discuss their problems and report their year's work gives one the feeling that the doctors' wives of the entire nation are organized with a single purpose—that of aiding the Medical Association. Surely the influence of these women can be felt, when they are striving through their various contacts, to disseminate correct medical information.

Our national membership this year totaled 42,262, an increase of 7,347. This number is exclusive of the membership of the states of New Hampshire and Massachusetts and the Territory of Hawaii which are newly organized.

A most interesting report of the division of public relations was given, showing the many, many ways the auxiliaries accomplish their aims, ever emphasizing the fact that the doctor's wife is the medium between the doctor and the public and that she should show leadership in health matters. The following projects, sponsored by the Medical Auxiliaries, proved successful in the different states: provided speakers for various meetings, arranged radio programs, distributed manuals on rheumatic fever and cancer control, held poster contests, provided loan closets with surgical supplies to cancer victims, provided nursing scholarships, sponsored speaking contests on tuberculosis in senior high schools, gave information on student nurse enrollment, organized educational film service, gave Hygeia as a gift to all new mothers, organized study groups to learn of pre-medical payment plans, helped health agencies in campaigns, and gave instructions on anti-social medicine. Our goals may seem far away and our accomplishments may not be great at the moment, but momentum will be gained and results are sure to come.

The important matter of changing the by-laws to permit the raising of the national dues to $1.00, which would include the subscription to a new "publication," brought about an interesting discussion. The final vote was in favor of the increase, but the decision as to whether there will be a new "publication," besides the Bulletin, will be left to the Advisory Board to the Woman's Auxiliary.

Many felt the Bulletin, of which 18,000 copies were printed and mailed last year, is sufficient. If there should be another "publication" it would contain material, important, entertaining, and educational to every doctor's wife, while the present Bulletin would remain essentially an officer's handbook.

Hygeia will hold its place of importance, with prizes awarded for the number of subscription credits secured during the contest period. There were 225,000 subscriptions to this magazine last year, an increase of 16,000.

The report on legislation asked that the influence of State Auxiliaries be felt, in objecting through their Congressmen, to the registration of physicians for draft. It was also stated that the National Health School Bill was not sanctioned by National P. T. A. as reported.

The following officers were installed for 1948-1949:

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New Jersey
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California
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Our own Mrs. J. D. Hamer, Phoenix, Arizona, was elected chairman of the 1949 nominating committee.

It seems appropriate here to pay tribute to Mrs. Hamer, our past national president. We from Arizona have reason to be proud of her and the good will she has established, not only for herself, but for our state. Your delegates noted, with pleasure, the warmth of greetings she received from Auxiliary members. She truly claims the love and deep respect of those with whom she worked and those she contacted during her term of office.

There is an ever increasing need for the continued work of medical Auxiliaries, for who should be better informed on health problems and who should teach them if not these groups of organized women?

The social events of the Twenty-fifth Convention of the Woman's Auxiliary to the American Medical Association were as follows:

On June 21st a tea honoring Mrs. Eustace A. Allen, President, and Mrs. Luther H. Kice, President-Elect, was held in the Century Room of the LaSalle Hotel.

A luncheon was given June 22d honoring the Past Presidents of the Woman's Auxiliary to the American Medical Association, in the Grand Ballroom of the LaSalle Hotel, at which time Dr. Morris Fishbein, Editor of the Journal of the American Medical Association and Hygeia, was Guest Speaker. The theme of his address was the importance of the doctor's wife as a liaison between the medical profession and other organized groups. He was most complimentary to the Auxiliary for its very fine work in helping with all phases of problems pertinent to the practice of medicine, such as health legislation and giving assistance to health agencies. He called to our attention the rapidity with which we had grown and what a powerful group, for disseminating knowledge, we could be. He also mentioned that it would be helpful to all physicians' wives, even though they were not members of the Auxiliary, to have another publication on health. It would in no manner replace Hygeia nor the Bulletin. He touched on the subject of the recent Government Health Bill, which, he stated had been shelved for the moment.

The second luncheon, held June 23d, was the highlight of the entire convention. This luncheon was given in honor of Mrs. Eustace A. Allen, President, and Mrs. Luther H. Kice, President-Elect. It, too, was held in the Grand Ballroom of the LaSalle Hotel. The speakers' table was surrounded with officers from both the American Medical Association and the Auxiliary.

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The Guests of Honor were: Dr. Edward L. Bortz, President; Dr. R. L. Sensenich, President-Elect; Dr. J. J. Moore, Treasurer; Dr. George F. Lull, Secretary and General Manager; Dr. Morris Fishbein, Editor of the Journal and Hygeia; Dr. Elmer L. Henderson, Chairman of the Board of Trustees; Dr. W. W. Bower, Director of Health Education Services of the American Medical Association; and the members of the Advisory Council of the Woman's Auxiliary to the American Medical Association.

We were privileged to hear several brilliant speakers. Dr. Edward L. Bortz discussed the need for alertness and preparedness of civilian population in the event of atomic warfare. Dr. W. W. Bower told of the availability of guest speakers for health education programs. He suggested that dates should be set well in advance so that guest speakers might give more than one lecture in the vicinity. Prepared disks for radio on all health subjects are available upon request. Dr. Bower was most gracious in offering the facilities of his department and urged the Auxiliary to avail themselves of these services.

Dr. Elmer L. Henderson complimented the Auxiliary highly on its splendid cooperation with the physicians in helping to explain medical problems. He felt that we should continue work of this kind. Even though the recent bill for government controlled medicine has been shelved, he emphasized, that it is certain to be brought before Congress again in one form or another. The Auxiliary must be able to explain accurately any phase of health legislation from the physician's viewpoint.

Mrs. Rollo K. Packard concluded the luncheon talks with a short resume of the interesting diversions that Chicago offers, including a new phase of entertainment. The Furniture Mart extended Auxiliary members, upon appointment, the privilege of previewing the latest methods of interior decorating. Rooms were shown from the reception hall through the kitchen, in any color scheme with any period of furniture. The large department stores would give private style shows for Auxiliary members, by appointment. Not only was the occasional wardrobe to be modeled but an entire bridal procession in any color scheme could be seen. Upon request the manequins would model any sports wear, such as, tennis, riding, skiing, or clothes. Mrs. Packard asked that we leave our names for appointment cards at the registration desk.

After adjourning the luncheon meeting the delegates and members continued the afternoon session.

One of the afternoon activities will long be remembered by those who attended. Mrs. Arthur I. Edison, Hygeia Chairman, showed the assembly, for the first time, the Hygeia Memorial Plaque given by Dr. Herman L. Kretschmer in memory of his wife, Lucy Barnett Kretschmer. The Plaque was accepted by the Auxiliary in 1944 and this was the first opportunity that the assembly had had to see it. There is room on the Plaque to inscribe names of winning contestants in the Hygeia contest for the next twenty years.

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The annual dinner of the Woman's Auxiliary for members and husbands was held in the Grand Ballroom of the LaSalle Hotel the evening of June 24. After the dinner a reception was held in honor of the President of the American Medical Association at the Palmer House.

This closed a year of great progress in the Woman's Auxiliary to the American Medical Association due to the able leadership and devotion of our President, Mrs. Eustace A. Allen.

We should like to take this opportunity to express our gratitude to Mrs. Rollo K. Packard, Convention Chairman, and her very fine committee for arranging a most entertaining convention in the unforgettable city of memories, Chicago.

Respectfully submitted

Mrs. M. L. Kent,
Mesa Delegate Chairman
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Tuberculosis Abstracts

In the war against tuberculosis the mass X-ray survey may well be considered as a reconnaissance undertaken to discover where the enemy is hidden, so that practicing physicians in the area may attack the disease most effectively. It is upon their efforts, supplemented by services within the community and reinforced by public awareness of the problem, that success or failure in the control of tuberculosis depends.

THE COMMUNITY AS A FORCE IN THE CONTROL OF TUBERCULOSIS

Modern epidemiological methods in the control of communicable diseases makes it imperative for workers in the field to know where, when, who, and how many any given disease attacks. The swiftest and most efficient way to the heart of this problem in the field of tuberculosis is through X-ray surveys of large population groups, preferably those which compose large metropolitan areas. These present all manner of social complexity, racial variation and economic resources.

At the beginning of organized control movements, it was believed that the most effective means of discovering the exact nature of the tuberculosis problem in the United States was through surveys of industrial, occupational and racial groups. However, the knowledge thus secured was at best spotty and was likely to be misleading when the whole population of the country was considered. It was thereupon determined to delve into those vast reservoirs of human beings which are our great cities. Here are all the maladies that are suffered by mankind. Through a prompt discovery of the tuberculosis problem in the larger cities of our country, a reasonably exact knowledge of the extent of the problem could be realized, public action stimulated, and professional forces joined.

City-wide X-ray surveys can be conducted with relative economy of means and money. Concentration of personnel, machinery, and educational devices within densely populous communities provides, in certain respects, quicker and more valuable results than do studies con-

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ducted in sparsely settled areas. Previous experience in cities already surveyed indicates that if present facilities are fully utilized, the increased case load of tuberculosis will not present a grave problem to the community. Seventy per cent of all new cases discovered by mass X-ray survey are minimal and do not constitute a grievous public health problem. Most of these cases will be noninfectious; the disease process will be incipient; and the probability of serious progression with adequate follow-up, will be slight. Such cases can be cared for by private physicians and public clinics, assisted by public health nurses and medical social workers. Sanatorium beds now occupied by noninfectious cases can be given over to far-advanced virulent disease which constitutes a menace to the local population.

Minimal, noninfectious cases are private physicians' cases, not sanatorium cases. The private practitioner can be a major force in the future control of tuberculosis in the communities of our country if he participates in follow-up activities after the survey has been completed. Through his efforts, minimal tuberculosis can be checked and, in individual cases, never become serious. Under the physician's care, needless distress and tragedy can be avoided. As a consequence of his vigilance, the general practitioner can reduce measurably the occurrence of deaths from tuberculosis.

Often communities can afford to enlarge present clinic and hospital facilities when they cannot afford to build new institutions. Recruiting professional personnel is always a serious problem everywhere. However, resolute efforts to procure and then train professional workers will be productive of fruitful results.

An aroused community makes for organized action. An informed community acts collectively as a social weapon against any threat to its existence. A community aware of the problem confronting it and organized for effective action is the principal force in a program to control tuberculosis. Isolated leaders and their followers, no matter how well trained or how profoundly dedicated, have little potency without the strength inherent in the human and economic resources of mobilized communities. By now it must be plain that the fight against tuberculosis is a social and economic movement as well as a disease problem. We now have enough information to be confident that an awakened awareness of the people is the chief tool for triumph.

The Community as a Force in the Control of Tuberculosis, Francis J. Weber, M.D., Editorial, Public Health Reports, September 5, 1947.

AN ANNOUNCEMENT

The South Atlantic Association of Obstetricians and Gynecologists announces the establishment of "The Foundation Prize." Authors of papers on Obstetrical or Gynecological subjects desiring to compete for the prize may obtain information from Dr. E. D. Colvin, Secretary-Treasurer, 1259 Clifton Road, N. E., Atlanta, Ga.

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